

100 105 110
 Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg
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 Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu
 130 135 140
 Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln
 145 150 155 160
 His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val
 165 170 175
 Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn
 180 185 190
 Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg
 195 200 205
 Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val
 210 215 220
 Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile
 225 230 235 240
 Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp
 245 250 255
 Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe
 260 265 270
 Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala
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 Cys Leu Ile Arg
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<210> 3343

<211> 594

<212> DNA

<213> Homo sapiens

<400> 3343

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<210> 3344
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 3344
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 35 40 45
 Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
 50 55 60
 Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
 65 70 75 80
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 85 90 95
 Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
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 <211> 1149
 <212> DNA
 <213> Homo sapiens

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<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

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Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
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Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
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Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
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Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
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Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
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Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
			165						170					175	
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
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Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
		195					200					205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
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Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

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<210> 3347

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 3347

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1260

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 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 3348
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 35 40 45
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met
 50 55 60
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met
 65 70 75 80
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val
 85 90 95
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu
 100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His
 115 120 125
 Val Ala Gly Ala Ala Tyr Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp
 130 135 140
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe
 145 150 155 160
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu
 165 170 175
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg
 180 185 190
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp
 195 200 205
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu
 210 215 220
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu
 225 230 235 240
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu
 245 250 255
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<210> 3349

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3349

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 360
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 660
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 720

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<210> 3350

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3350

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			20					25					30		
Gln	Gly	Leu	Ala	Val	Tyr	Ala	Ser	Pro	Glu	Asn	Lys	Lys	Leu	Phe	Glu
		35				40					45				
Glu	Glu	Lys	Leu	Leu	Arg	Gln	Glu	Gly	Lys	Leu	Glu	Lys	Ile	Gln	Thr
	50					55					60				
Lys	Ala	Gly	Glu	Ala	Thr	Val	Lys	Phe	Leu	Lys	Ser	Cys	Arg	Leu	Glu
65					70				75					80	
Val	Gly	Met	Lys	Asn	Asn	Val	Lys	Trp	Glu	Leu	Asn	Pro	Glu	Ile	Val
			85					90						95	
Ala	Arg	His	Phe	Phe	Lys	Asn	Leu	Gly	Val	Val	Val	Ala	Pro	His	Thr
			100					105						110	
Leu	Lys	Leu	Pro	Ala	Glu	Pro	Ile	Thr	Arg	Trp	Gly	Glu	Tyr	Trp	Cys
		115					120					125			
Glu	Val	Thr	Val	Asn	Gly	Leu	Asp	Thr	Val	Arg	Val	Pro	Met	Ser	Val
	130					135					140				
Val	Asn	Phe	Glu	Lys	Pro	Lys	Thr	Lys	Arg	Tyr	Lys	Tyr	Trp	Leu	Ala
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<210> 3351

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 3351

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 180
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<210> 3352

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3352

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 Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
 35 40 45
 Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
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 Ser

<210> 3353
 <211> 420
 <212> DNA
 <213> Homo sapiens

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<210> 3354
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 3354
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 35 40 45
 Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
 50 55 60
 Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
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 Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
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 Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
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<210> 3355

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3355

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<210> 3356

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3356

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His	Ala	Phe	Leu	Pro	Ile	Ile	Pro	Asn	Thr	Gln	Arg	Gly	Gln	Leu	Glu
			20					25					30		
Asp	Arg	Leu	Asn	Asn	Gln	Ala	Arg	Thr	Ile	Ala	Phe	Leu	Leu	Glu	Gln
		35					40					45			
Ala	Phe	Arg	Ile	Lys	Glu	Asp	Ile	Ser	Ala	Cys	Leu	Gln	Gly	Thr	His
	50					55					60				
Gly	Phe	Arg	Lys	Glu	Glu	Ser	Leu	Ala	Arg	Lys	Leu	Leu	Glu	Ser	His
65				70					75					80	
Ile	Gln	Thr	Ile	Thr	Ser	Ile	Val	Lys	Lys	Leu	Ser	Gln	Asn	Ile	Glu
			85						90					95	
Ile	Leu	Glu	Asp	Gln	Ile	Arg	Ala	Arg	Asp	Gln	Ala	Ala	Thr	Gly	Thr
			100					105					110		
Asn	Phe	Ala	Val	His	Glu	Ile	Asn	Ile	Lys	His	Leu	Gln	Gly	Val	Gly
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Arg	Ser	Phe													
		130													

<210> 3357

<211> 2268

<212> DNA

<213> Homo sapiens

<400> 3357

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 120
 agggcctata aaaataattc cttcttgctt acaaagttca gcaaattcca tgttttctga
 180
 aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttgcca cttgaatgat
 240
 tttctccata gataggtagc tctgctggga ggaacgggtt tggcgtgtgg gacgcagctg
 300
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 420
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 480
 agaaacatta ccaaggtcct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc
 540
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 1020
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 1080
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 1140
 aatgctgtgt acttgtttga aagagactgt agtgtgcaga ggcgacatca gaagatcatt
 1200
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 1260
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 1320
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 1380
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 1980
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 2040
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 2160
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 2220
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 2268

<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

Gln	Thr	Val	Ala	Val	Tyr	Ser	Glu	Ala	Asp	Arg	Asn	Ser	Met	His	Val
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Asp	Met	Ala	Asp	Glu	Ala	Tyr	Ser	Ile	Gly	Pro	Ala	Pro	Ser	Gln	Gln
			20					25					30		
Ser	Tyr	Leu	Ser	Met	Glu	Lys	Ile	Ile	Gln	Val	Ala	Lys	Thr	Ser	Ala
		35				40						45			
Ala	Gln	Ala	Ile	His	Pro	Gly	Cys	Gly	Phe	Leu	Ser	Glu	Asn	Met	Glu
		50				55					60				
Phe	Ala	Glu	Leu	Cys	Lys	Gln	Glu	Gly	Ile	Ile	Phe	Ile	Gly	Pro	Pro
65				70					75					80	
Pro	Ser	Ala	Ile	Arg	Asp	Met	Gly	Ile	Lys	Ser	Thr	Ser	Lys	Ser	Ile
				85					90					95	
Met	Ala	Ala	Ala	Gly	Val	Pro	Val	Val	Glu	Gly	Tyr	His	Gly	Glu	Asp
			100					105					110		
Gln	Ser	Asp	Gln	Cys	Leu	Lys	Glu	His	Ala	Arg	Arg	Ile	Gly	Tyr	Pro
		115					120					125			
Val	Met	Ile	Lys	Ala	Val	Arg	Gly	Gly	Gly	Gly	Lys	Gly	Met	Arg	Ile
		130				135						140			
Val	Arg	Ser	Glu	Gln	Glu	Phe	Gln	Glu	Gln	Leu	Glu	Ser	Ala	Arg	Arg
145				150						155				160	
Glu	Ala	Lys	Lys	Ser	Phe	Asn	Asp	Asp	Ala	Met	Leu	Ile	Glu	Lys	Phe
			165						170					175	
Val	Asp	Thr	Pro	Arg	His	Val	Glu	Val	Gln	Val	Phe	Gly	Asp	His	His
			180					185					190		
Gly	Asn	Ala	Val	Tyr	Leu	Phe	Glu	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg

195	200	205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu		
210	215	220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val		
225	230	235
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His		240
	245	250
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro		255
	260	265
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg		270
	275	280
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu		285
	290	295
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn		300
305	310	315
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg		320
	325	330
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu		335
	340	345
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala		350
	355	360
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln		365
	370	375
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu		380
385	390	395
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile		400
	405	410
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys		415
	420	425
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala		430
	435	440
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe		445
	450	455
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met		460
465	470	475
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly		480
	485	490

<210> 3359

<211> 652

<212> DNA

<213> Homo sapiens

<400> 3359

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gcctatacct actgtagctt ctccacgtat ggaccctaaa ggctactgct gctactacgg
120

ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180

gggaggtaat taaaaaacag tggaatggaa aaacagtgc ttagtcatcc tgtaatatgc
240

tccttgctcaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

cgcatcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact
 360
 actgtgaatg tgtgctcaga actggtgaag ctagttttct gtgtgcttgt gtcattctgt
 420
 gttataaaga aagatcatca aagtagaaat ttgaaatatg cttcctggaa ggaattctct
 480
 gatttcatga agtgggccat tctgacctt ctttatttcc tggataactt gattgtcttc
 540
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 600
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<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	Thr
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Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	Ser	Ser
			20					25				30			
Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	Lys	Tyr	Asp
		35					40					45			
Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	Val	Lys	Leu	Val
	50					55					60				
Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	Lys	Asp	His	Gln	Ser
65					70					75				80	
Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	Phe	Ser	Asp	Phe	Met	Lys
			85					90					95		
Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	Leu	Asp	Asn	Leu	Ile	Val	Phe
			100					105					110		
Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	Ala	Met	Ala	Val	Ile	Phe	Ser	Asn
		115					120					125			
Phe	Ser	Ile	Ile	Thr	Thr	Ala	Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg
	130					135					140				
Arg	Leu	Asn	Trp	Ile											
145															

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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 120
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccggcg catagcgagc ccgggtctgt
 180
 gatcgccgag gcgggagtga agatagtcca agtcctaaga gacagcgccct ctctcattca
 240

gtcttttgatt atacatcagc atcaccagct ccctcaccac caatgcgacc atgggagatg
 300
 acatcaaata ggcagccccc ttcagttcga ccaagccaac atcacttctc aggggaacga
 360
 tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg
 420
 gatcgtctgt ctgcacataa ttccattagt caagatgaaa actatcacca tctcccttac
 480
 gcacagcagc aagcaataga ggagcctcga gccttccacc ctccgaatgt atctccccgt
 540
 ctgctacatc ctgctgtcga tccaccccag cagaatgcag tcatgggtga catacatgat
 600
 cagctccatc aaggaacagt cctgttttct tacacagtaa caacagtggc accacatggg
 660
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 720
 tctgtggttt tcagtggaca gcacctccct gtctgtagtg tgccctctcc aatgcttcag
 780
 gcatgttcag ttcagcactt accagtacca tatgctgcat tcccaccct tatttctagt
 840
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 900
 ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgctctgca aaggatagaa
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 1020
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 1040

<210> 3362

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3362

Met	Arg	Pro	Trp	Glu	Met	Thr	Ser	Asn	Arg	Gln	Pro	Pro	Ser	Val	Arg
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Pro	Ser	Gln	His	His	Phe	Ser	Gly	Glu	Arg	Cys	Asn	Thr	Pro	Ala	Arg
			20					25					30		
Asn	Arg	Arg	Ser	Pro	Pro	Val	Arg	Arg	Gln	Arg	Gly	Arg	Arg	Asp	Arg
			35				40					45			
Leu	Ser	Arg	His	Asn	Ser	Ile	Ser	Gln	Asp	Glu	Asn	Tyr	His	His	Leu
	50				55					60					
Pro	Tyr	Ala	Gln	Gln	Gln	Ala	Ile	Glu	Glu	Pro	Arg	Ala	Phe	His	Pro
65				70					75					80	
Pro	Asn	Val	Ser	Pro	Arg	Leu	Leu	His	Pro	Ala	Ala	His	Pro	Pro	Gln
				85				90						95	
Gln	Asn	Ala	Val	Met	Val	Asp	Ile	His	Asp	Gln	Leu	His	Gln	Gly	Thr
			100				105						110		
Val	Pro	Val	Ser	Tyr	Thr	Val	Thr	Thr	Val	Ala	Pro	His	Gly	Ile	Pro
		115				120						125			
Leu	Cys	Thr	Gly	Gln	His	Ile	Pro	Ala	Cys	Ser	Thr	Gln	Gln	Val	Pro
	130				135						140				
Gly	Cys	Ser	Val	Val	Phe	Ser	Gly	Gln	His	Leu	Pro	Val	Cys	Ser	Val

145 150 155 160
 Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
 165 170 175
 Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
 180 185 190
 Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
 195 200 205
 Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
 210 215 220
 Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
 225 230 235 240
 Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
 245 250

<210> 3363
 <211> 718
 <212> DNA
 <213> Homo sapiens

<400> 3363
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 180
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 240
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 300
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 360
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 420
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<210> 3364
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 3364
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 Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

	20		25		30
Pro Gly	Leu Leu Met Glu Ser Tyr Ala	Pro Ser	Pro Arg	Leu Gly Cys	
	35	40	45		
Thr Phe	Thr Asp Cys Gln Lys Phe	Leu Ile Leu	Leu Trp	Gly Pro Gly	
	50	55	60		
Lys Glu	Ser Pro Thr Val Trp Ser Cys	Pro Leu Asp	Ser Thr His	His	
65	70	75	80		
Ser Gly	Ser Asn Cys Thr Ser Leu	Gly Ser Ser Ala	Gly Cys Ile	Gly	
	85	90	95		
Ser Gly	Leu Phe Arg Cys Cys Cys	Gly Arg Thr Asp	Ser Pro Arg	Ala	
	100	105	110		
Gly Gly	Arg Gly Gly Arg Trp Gly	Ala Ser Pro Val	Gly Ser Gly	Asp	
	115	120	125		
Thr Pro	Glu Leu Leu Gly Arg Gln	Cys His Pro Lys	Asn His Gly	His	
	130	135	140		
Asp Gly	Val Pro Asp His Ala Gly	Gln Pro Ile Pro	His His Gln	Arg	
145	150	155	160		
Ser Trp	Ala				

<210> 3365

<211> 2389

<212> DNA

<213> Homo sapiens

<400> 3365

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120
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420
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540
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660
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720
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840

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1020
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1080
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1380
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1440
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2100
aaccaggaaa ttagcagggg caacattcta tgcaagatta catatgtagc taatgtgaac
2160
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2280
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2340
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2389

<210> 3366

<211> 624

<212> PRT

<213> Homo sapiens

<400> 3366

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      20          25          30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
      35          40          45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
      50          55          60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65          70          75          80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
      85          90          95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
      100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
      115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
      130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
      165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
      180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
      195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
      210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
      245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
      260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
      275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
      290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
      325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
      340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
      355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
      370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

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385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
          465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
          545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
          610          615          620

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<210> 3367

<211> 366

<212> DNA

<213> Homo sapiens

<400> 3367

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gagaattacg ccacagaggt gttggaggct ggcacgtgg catctcagga gcacggaggg
120
tgccttcccc acttcaggcc tcttagtgct aaggatgtga gaggcaaggg ctgctgggag
180
agtattttac ggactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag
240
gaggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc
300
cctcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctgtt tccttcaggc
360
accagg
366

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<210> 3368

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3368

Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1 5 10 15
 Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
 20 25 30
 Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
 35 40 45
 Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
 50 55 60
 Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
 65 70 75 80
 Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
 85 90 95
 Thr Leu Phe Pro Ser Gly Thr Arg
 100

<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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 60
 gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaagaggaaa
 120
 aaggttttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
 180
 gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
 240
 ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
 300
 tttgcatctg cagttcctca tacaaccgg agtaggcgag accaagaagt agccggtaga
 360
 gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
 420
 gagcatggtg aatttgagaa gaatttgat ggaactagca tagattctgt acggcaagtg
 480
 atcaactctg gcaaaatatg tcttttaagt cttcgtacac agtcattgaa gactctccgg
 540
 aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
 600
 gcattattgg ccaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
 660
 aagacaagag agatggagca gaacaatggc cactacttg atacggcaat tgtgaattcc
 720
 gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
 780
 cagtgggtac catccacttg gctgagggtga aagaaacatc cattctgtgg catgttggac
 840
 ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
 900

agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac
 960
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggcttttagcg
 1020
 gttcttgccct cattttggga ttctaaatgg aagctttcaa cagagcattc cattttgtcc
 1080
 tgttaaaacc ttttgttttc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac
 1140
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa
 1200
 atcattaaca cttaaagac ttcatgggga atattgagca gagggactgt gcttctatgc
 1260
 actgggcaag gcagtatttg cttaggaaac taatttagtc atcagagata ctttcctaaa
 1320
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 1380
 attcatttat atgtcttttg attct
 1405

<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

Leu	Val	Pro	Gly	Lys	Ser	Phe	Gln	Gln	Gln	Arg	Glu	Ala	Met	Lys	Gln
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Thr	Ile	Glu	Glu	Asp	Lys	Glu	Gln	Lys	Asn	Gln	Glu	Asn	Cys	Gly	Ala
		20					25					30			
Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35				40					45				
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
		50			55					60					
Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
65				70				75						80	
Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
		85					90						95		
Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
		100					105					110			
Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
		115				120					125				
Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
		130				135					140				
Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
145				150					155					160	
Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
			165				170						175		
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
		180					185					190			
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
		195				200					205				
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
	210					215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

225					230					235				240	
Asp	Leu	Asp	Lys	Ala	Tyr	Gln	Glu	Leu	Leu	Arg	Leu	Ile	Asn	Lys	Leu
				245					250					255	
Asp	Thr	Glu	Pro	Gln	Trp	Val	Pro	Ser	Thr	Trp	Leu	Arg			
			260					265							

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<210> 3371
<211> 790
<212> DNA
<213> Homo sapiens
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<400> 3371
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gacagaccag agactccagt caccctcgcc atctgtggaa tcatattctg gctgatcttt
120
ggtttcaaaa gtccggtggc ctggggctgt atgggtccac cccctggggg gggtgaggaa
180
gttgctgtcg tctgaggtag tgccgtacgt gtagtcctgg tccccgcttt tgccctggcc
240
aaagaagcac caagggagca tctggaccac caggctgcac accaaccctt cccagaccg
300
cgattccgac aagagacggg gcacccttca ttgcaaagag atttccccag atcctttctc
360
cttgatctac caaactttcc agatctttcc aaagctgata tcaatgggca gaatccaaat
420
atccaggtca ccatagaggt ggtcgacggt cctgactctg aagcagataa agatcagcat
480
ccggagaata agcccagctg gtcagtccca tcccccgact ggcgggcctg gtggcagagg
540
tccctgtcct tggccagggc aaacagcggg gaccaggact acaagtacga cagtacctca
600
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660
acttttgaaa ccaaagatca gccagaatat gattccacag atggcgaggg tgactggagt
720
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780
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790

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<210> 3372
<211> 198
<212> PRT
<213> Homo sapiens
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<400> 3372

Gly	Thr	Ala	Val	Arg	Val	Val	Leu	Val	Pro	Ala	Phe	Ala	Leu	Ala	Lys
1				5					10					15	
Glu	Ala	Pro	Arg	Glu	His	Leu	Asp	His	Gln	Ala	Ala	His	Gln	Pro	Phe
			20					25					30		
Pro	Arg	Pro	Arg	Phe	Arg	Gln	Glu	Thr	Gly	His	Pro	Ser	Leu	Gln	Arg
		35					40					45			
Asp	Phe	Pro	Arg	Ser	Phe	Leu	Leu	Asp	Leu	Pro	Asn	Phe	Pro	Asp	Leu

50	55	60
Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile		
65	70	75
Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro		80
	85	90
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp		95
	100	105
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp		110
	115	120
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro		125
	130	135
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys		140
145	150	155
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu		160
	165	170
Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr		175
	180	185
Arg Ser Cys Gly Tyr Ala		190
195		

<210> 3373

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3373

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 120
 gtgttctggt gcgggccagc gcctgaccgg tgcgggcggc ctcaggagag gagagcttgc
 180
 tcagtgcgtc acgtagtcag ggctcaggct ggggcccggc tccagagcct ggtcacattc
 240
 ccaagcttca ttctcttcac ctgtgaattg caggcttccc tgggtgtgcc tgcacatgag
 300
 ggaagacaca cctgaagcac tgggtccctc catggccttg ggccgcagga accgtgggag
 360
 cacgagcttg ggaaggacat gtcggaggcc ggcgcctgtg cgggcagaag ctgtgtcctc
 420
 cagcccttcc accaccagca tgttctcatt tccagggttc tctgtttaa aaacaaaagt
 480
 agcgcacatcg tggctcttcac gacgtacacc cagaagcacc cgtccatcga ggacgggcct
 540
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 600
 gtcttgggat cctgcagggg gagggggctg tgaatgtgcg ggttgtgtgt agacgtgggtg
 660
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 720
 atgcat
 726

<210> 3374

<211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3374
 Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro
 1 5 10 15
 Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn
 20 25 30
 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro
 35 40 45
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile
 50 55 60
 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg
 65 70 75 80
 Gly Arg Gly Leu

<210> 3375
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3375
 acgcgtgcat acgtgatctc atgtttgcac acatgtgtcc atgcagatgc atgctctcac
 60
 gcacatgtgc ccacacactc agcactcaca ccccgctctg caggctcagc cccactcctg
 120
 agccacctgc ctgggctttg ggggcccagc cggcatgggg agccccaggc tccagctggc
 180
 ctcgcttggc tctgaaatct aggccaggat gcagagcccg cagtgcggcc agtggagccc
 240
 ctggtactgt gcgcagcccc cacctggcag ccccttttcc tgtcaaagcc cctcccagcg
 300
 tcctctcccc accaggcaag ctaccgctt gaggcttagg acgttgcgcc ctctgtgtc
 360
 cttgcccagc atccccggcc tgcattctcac cag
 393

<210> 3376
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 3376
 Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys
 1 5 10 15
 Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr
 20 25 30
 Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala
 35 40 45
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys
 50 55 60
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

```

65          70          75          80
His Leu Ala Ala Pro Phe Pro Val Lys Ala Pro Pro Ser Val Leu Ser
           85          90          95
Pro Pro Gly Lys Leu Pro Ala
        100

```

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<210> 3377
<211> 5235
<212> DNA
<213> Homo sapiens
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<400> 3377
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120
tgacaggaaa tttcggggaa ctaaaaaggc tggaagaaca tgaagatgga gcagtcataa
180
accaccact caaggaccat ctcttccacg accatccaca cgagactcag attgtctgaa
240
ttgagctatc gcaacttaat gctaaaagct ctttaaagct acagatttat gacatagttc
300
cttccaaaat attacatcat aaatcattga gaagattaaa aaaaaacact tgaagaaatt
360
gtagttttta acatctctgc atatattttg gatagctact aggttacttt aactgtcatt
420
aaggagcaca gacttactga agctttactg gacagaatcc tgggaaatcg atatcattat
480
aaggttatat ttcccagtta gcggggtgaag ggctggagac cttattgcag tcatggcttt
540
cacaaattac agcagttctga atcgagctca gctaaccctt gaatatctgc acacaaattc
600
gtaagtatcc tctaggtgcc actgaggtaa ccagtaactc gttccttgat attatatgga
660
aatcgtttcc ccagaaaatt ttgctttttc actttttgag atgtatccca ctgggagtga
720
atgtgtcact ggatatcttg agctctgtat tgaagaactg agatcagtga aatacttggt
780
gctaateccag aagaatctga tttttgttta ttggatcaaa attttctaaa tgcaaacttt
840
agttatttga agtcaatatg ttgagttggt tcattcaagt gtttatagga atccaacaaa
900
tactgtctta ttggatcgcc aaatgttgga ctattttagt atcaaccgtt tcccctctgt
960
agtgacaacg tcctaaacag ttaggtttat aacaagtgtt tactttctaa caagaaaaca
1020
gaagacattt aaatgacaac tttcaagaag aaaattttta ttttttcaga agttggcatt
1080
atcttcctgg cagattgctc acatccaata ttatttgtat atgctaaca ggaaacggca
1140
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1200
ttcatgggtc ttgagttcat gaaggagtaa tctaactact ccaacatggg ctggaatggt
1260

tcagggtttaa tccatatgcc cactctcttg gaggctgtcc agtagcgtca aaactttagt
1320
gttttaatac attcacctgt tacttttgag atgaagttca cttttcttgg atcacatgca
1380
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1440
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1560
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1620
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1680
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1920
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1980
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2040
gacataatct caaatccaag agatatccag atggcagaga cgtccccaga gggcacgaag
2100
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2280
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2340
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2400
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2520
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3720
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3780
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3900
acgacaccaa gagaccgctg ggtggagaaa ggcagtgagg atgtgcggct gatgaaaccc
3960
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4020
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4080
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4140
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agtgtatga attcagatga gctaatatct tttcctctga aggagtactt caagcaatat
4260
gaagtagggc tccaaaacct gtgcaattcc taccagagcc gtgctgactc ccggggccaag
4320
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4380
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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

Met	Leu	Cys	Phe	Leu	Asp	Asp	Gly	Ala	Gly	Met	Asp	Pro	Ser	Asp	Ala
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Ala	Ser	Val	Ile	Gln	Phe	Gly	Lys	Ser	Ala	Lys	Arg	Thr	Pro	Glu	Ser
			20				25					30			
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
	35					40					45				
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
	50				55						60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
65				70					75					80	
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
			85					90					95		
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
		100					105						110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys	
	115				120					125					
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
	130				135					140					
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
145				150				155						160	
Ile	Gln	Met	Ala	Glu	Thr	Ser	Pro	Glu	Gly	Thr	Lys	Pro	Glu	Arg	Arg

165 170 175
 Ser Phe Arg Ala Tyr Ala Ala Val Leu Tyr Ile Asp Pro Arg Met Arg
 180 185 190
 Ile Phe Ile His Gly His Lys Val Gln Thr Lys Arg Leu Ser Cys Cys
 195 200 205
 Leu Tyr Lys Pro Arg Met Tyr Lys Tyr Thr Ser Ser Arg Phe Lys Thr
 210 215 220
 Arg Ala Glu Gln Glu Val Arg Ile Ala Val His Val Ala Arg Ile Ala
 225 230 235 240
 Glu Glu Lys Ala Arg Glu Ala Glu Ser Lys Ala Arg Thr Leu Glu Val
 245 250 255
 Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln
 260 265 270
 Val Gln Asn Arg Ala Ile Thr Leu Arg Arg Glu Ala Asp Val Lys Lys
 275 280 285
 Arg Ile Lys Glu Ala Lys Gln Arg Ala Leu Lys Glu Pro Lys Glu Leu
 290 295 300
 Asn Phe Val Phe Gly Val Asn Ile Glu His Arg Asp Leu Asp Gly Met
 305 310 315 320
 Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly
 325 330 335
 Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val
 340 345 350
 Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe
 355 360 365
 Ala Asp Ala Lys Glu Tyr Arg His Leu Leu Arg Ala Met Gly Glu His
 370 375 380
 Leu Ala Gln Tyr Trp Lys Asp Ile Ala Ile Ala Gln Arg Gly Ile Ile
 385 390 395 400
 Lys Phe Trp Asp Glu Phe Gly Tyr Leu Ser Ala Asn Trp Asn Gln Pro
 405 410 415
 Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro
 420 425 430
 Thr Thr Ile Gln Cys Asp Leu Cys Lys Trp Arg Thr Leu Pro Phe
 435 440 445
 Gln Leu Ser Ser Val Glu Lys Asp Tyr Pro Asp Thr Trp Val Cys Ser
 450 455 460
 Met Asn Pro Asp Pro Glu Gln Asp Arg Cys Glu Ala Ser Glu Gln Lys
 465 470 475 480
 Gln Lys Val Pro Leu Gly Thr Phe Arg Lys Asp Met Lys Thr Gln Glu
 485 490 495
 Glu Lys Gln Lys Gln Leu Thr Glu Lys Ile Arg Gln Gln Gln Glu Lys
 500 505 510
 Leu Glu Ala Leu Gln Lys Thr Thr Pro Ile Arg Ser Gln Ala Asp Leu
 515 520 525
 Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro
 530 535 540
 Val Arg Arg Pro Gln Arg Pro Arg Ser Pro Pro Leu Pro Ala Val Ile
 545 550 555 560
 Arg Asn Ala Pro Ser Arg Pro Pro Ser Leu Pro Thr Pro Arg Pro Ala
 565 570 575
 Ser Gln Pro Arg Lys Ala Pro Val Ile Ser Ser Thr Pro Lys Leu Pro
 580 585 590
 Ala Leu Ala Ala Arg Glu Glu Ala Ser Thr Ser Arg Leu Leu Gln Pro

595	600	605
Pro Glu Ala Pro Arg Lys	Pro Ala Asn Thr Leu Val Lys Thr Ala Ser	
610	615	620
Arg Pro Ala Pro Leu Val Gln Gln Leu Ser Pro Ser Leu Leu Pro Asn		
625	630	635
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro		640
645	650	655
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro		
660	665	670
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu		
675	680	685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val		
690	695	700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly		
705	710	715
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His		720
725	730	735
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala		
740	745	750
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr		
755	760	765
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser		
770	775	780
Glu Asp Val Arg Leu Met Lys Pro Pro Ser Pro Glu His Gln Ser Leu		
785	790	795
Asp Thr Gln Gln Glu Gly Gly Glu Glu Glu Val Gly Pro Val Ala Gln		800
805	810	815
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile		
820	825	830
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu		
835	840	845
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser		
850	855	860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu		
865	870	875
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu		880
885	890	895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys		
900	905	910
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr		
915	920	925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln		
930	935	940
Lys Val Gln Glu Asp Ile Asp Ile Asn Thr Asp Asp Glu Leu Asp Ala		
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Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp		960
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<210> 3379

<211> 898

<212> DNA

<213> Homo sapiens

<400> 3379

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 120
 cccaaccct gggagctccg agtgtcagaa gatgcgttat tgggctcaga gattgcacag
 180
 gtaacagggg atgatgtgga ctcaggaccc gtgctgtggt atgtgctaag cccatctggg
 240
 ccccaggatc ccttcagtgt tggccgctat ggaggccgtg tctccctcac ggggcccctg
 300
 gactttgagc agtgtgaccg ctaccagctg cagctgctgg cacatgatgg gcctcatgag
 360
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 420
 cagagcctct accaggaat gctgcttgag cacacacccc caggcagtgc cattctctcc
 480
 gtctctgcca ctgatcgga ctcagggtgcc aacggtcaca tttctacca cctggcttcc
 540
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 660
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 720
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 780
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 898

<210> 3380

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3380

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Ser	Pro	Ala	Leu	Val	Gly	Ser	Ala	Thr	Leu	Thr	Val	Met	Val	Ile	Asp
		20						25					30		
Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
	35					40					45				
Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
	50					55				60					
Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65					70				75					80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
			85					90						95	
Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
		100						105					110		
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
		115					120					125			
Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ala	Phe	Ser	Gln	Ser	Leu	Tyr

130		135		140
Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser				
145		150		155
Val Ser Ala Thr Asp Arg Asp Ser Gly Ala Asn Gly His Ile Ser Tyr				160
	165		170	175
His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly				
	180		185	190
Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser				
	195		200	205
Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val				
	210		215	220
Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp				
225		230		235
His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu				240
	245		250	255
Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala				
	260		265	270
Asp Gly Ser Arg Ser His Ala Ala Val Asp Tyr Ser Ile Ile Ser Gly				
	275		280	285
Asn Trp Gly Arg Val Phe Gln Leu Glu Pro Arg				
290		295		

<210> 3381

<211> 1379

<212> DNA

<213> Homo sapiens

<400> 3381

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 180
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 240
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 300
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 360
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 420
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 480
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 540
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 660
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 720
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 1200
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 1260
 agttaatggg gtggactggg ttgggaagaa atacatttcc taatgtattt atagaaaata
 1320
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 1379

<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

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 20 25 30
 Glu Glu Glu Gln Glu Glu Ser Glu Glu Ala Ala Cys Gly Ser Lys Lys
 35 40 45
 Arg Val Val Pro Gly Ile Val Tyr Leu Gly His Ile Pro Pro Arg Phe
 50 55 60
 Arg Pro Leu His Val Arg Asn Leu Leu Ser Ala Tyr Gly Glu Val Gly
 65 70 75 80
 Arg Val Phe Phe Gln Ala Glu Asp Arg Phe Val Arg Arg Lys Lys Lys
 85 90 95
 Ala Ala Ala Ala Ala Gly Gly Lys Lys Arg Ser Tyr Thr Lys Asp Tyr
 100 105 110
 Thr Glu Gly Trp Val Glu Phe Arg Asp Lys Arg Ile Ala Lys Arg Val
 115 120 125
 Ala Ala Ser Leu His Asn Thr Pro Met Gly Ala Arg Arg Arg Ser Pro
 130 135 140
 Phe Arg Tyr Asp Leu Trp Asn Leu Lys Tyr Leu His Arg Phe Thr Trp
 145 150 155 160
 Ser His Leu Ser Glu His Leu Ala Phe Glu Arg Gln Val Arg Arg Gln
 165 170 175
 Arg Leu Arg Ala Glu Val Ala Gln Ala Lys Arg Glu Thr Asp Phe Tyr
 180 185 190
 Leu Gln Ser Val Glu Arg Gly Gln Arg Phe Leu Ala Ala Asp Gly Asp
 195 200 205
 Pro Ala Arg Pro Asp Gly Ser Trp Thr Phe Ala Gln Arg Pro Thr Glu

210	215	220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg		
225	230	235
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu		240
	245	250
Leu Ala Arg Ile Phe Gly Ala Pro Pro Pro Ser Glu Ser Met Glu Gly		255
	260	265
Pro Ser Leu Val Arg Asp Ser		270
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<210> 3383

<211> 309

<212> DNA

<213> Homo sapiens

<400> 3383

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120
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180
ctgggagctg tcctgcccc gatctccac acaaacactc cagcatgaaa gagcgagact
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309

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<210> 3384

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3384

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Thr	Asn	Phe	Val	Ala	Gly	Val	Ser	Ile	Val	Val	Ile	Cys	Val	Ile	Gly
			20					25					30		
Asn	Ala	His	Phe	Leu	Thr	Ser	Phe	Val	Leu	Glu	His	Arg	Ile	Thr	Ala
			35				40					45			
Asn	Ala	His	Pro	Trp	Glu	Leu	Ser	Cys	Pro	Arg	Ser	Pro	Thr	Gln	Thr
			50			55				60					
Leu	Gln	His	Glu	Arg	Ala	Arg	Leu	Asn	Leu	Lys	Lys	Lys	Lys	Phe	Arg
65				70					75					80	
Ala	Pro	Glu	Gln	Glu	Leu	Val	Ser	Ile	Ile	Asn	Ser	Glu	Ser		
				85					90						

<210> 3385

<211> 720

<212> DNA

<213> Homo sapiens

<400> 3385

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 120
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 240
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 300
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<210> 3386

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3386

Met	Val	Val	Lys	Thr	Val	Thr	Val	Arg	Gly	Trp	Gly	Ala	Leu	Arg	Ser
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Thr	Ser	Ser	Ala	Pro	His	Tyr	Pro	Gly	Ser	Phe	Arg	Val	Gly	Pro	Arg
			20					25					30		
Gln	Pro	Pro	Ala	Ser	Ala	Thr	Thr	Pro	Val	Pro	Leu	Ala	Arg	Phe	Phe
			35				40					45			
Val	Asn	Phe	Pro	Ser	Ala	Lys	Gln	Tyr	Phe	Ser	Gln	Phe	Lys	His	Met
	50					55				60					
Glu	Asp	Pro	Leu	Glu	Met	Glu	Arg	Ser	Pro	Gln	Leu	Arg	Lys	His	Ala
65				70					75					80	
Cys	Arg	Val	Met	Gly	Ala	Leu	Asn	Thr	Val	Val	Glu	Asn	Leu	His	Asp
			85					90					95		
Pro	Asp	Lys	Val	Ser	Ser	Val	Leu	Ala	Leu	Val	Gly	Lys	Ala	His	Ala
			100					105					110		
Leu	Lys	His	Lys	Val	Glu	Pro	Val	Tyr	Phe	Lys	Ile	Leu	Ser	Gly	Val
		115				120						125			
Ile	Leu	Glu	Val	Val	Ala	Glu	Glu	Phe	Ala	Ser	Asp	Phe	Pro	Pro	Glu
	130					135				140					
Thr	Gln	Arg	Ala	Trp	Ala	Lys	Leu	Arg	Gly	Leu	Ile	Tyr	Ser	His	Val
145				150					155					160	
Thr	Ala	Ala	Tyr	Lys	Glu	Val	Gly	Trp	Val	Gln	Gln	Val	Pro	Asn	Ala
			165					170						175	
Thr	Thr	Pro	Pro	Ala	Thr	Leu	Pro	Ser	Ser	Gly	Pro				

180

185

<210> 3387

<211> 3299

<212> DNA

<213> Homo sapiens

<400> 3387

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360
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420
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1380

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1560
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<210> 3388

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3388

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			20					25					30		
Leu	Arg	Val	Val	Leu	Ala	Leu	Arg	Gly	Arg	Glu	Glu	Val	Ser	Asp	Ala
			35				40					45			
Gly	Cys	Gly	Gly	Pro	Arg	Ile	Thr	Ile	Asn	Lys	Asp	Thr	Lys	Val	Pro
50						55					60				
Asn	Ala	Cys	Leu	Phe	Thr	Ile	Asn	Lys	Glu	Asp	His	Thr	Leu	Gly	Asn
65					70				75					80	
Ile	Ile	Lys	Ser	Gln	Leu	Leu	Lys	Asp	Pro	Gln	Val	Leu	Phe	Ala	Gly
			85					90					95		
Tyr	Lys	Val	Pro	His	Pro	Leu	Glu	His	Lys	Ile	Ile	Ile	Arg	Val	Gln
			100					105					110		
Thr	Thr	Pro	Asp	Tyr	Ser	Pro	Gln	Glu	Ala	Phe	Thr	Asn	Ala	Ile	Thr
			115				120					125			
Asp	Leu	Ile	Ser	Glu	Leu	Ser	Leu	Leu	Glu	Glu	Arg	Phe	Arg	Val	Ala
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<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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308

<210> 3390
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3390
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35 40 45
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro
50 55 60
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu
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Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His
85 90 95
Val Glu Thr Pro Arg Ser
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<210> 3391
<211> 1295
<212> DNA
<213> Homo sapiens

<400> 3391
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360
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 960
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<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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			20					25					30		
Phe	Gly	Val	Ile	Ala	Asp	Val	Gln	Phe	Ala	Asp	Leu	Glu	Asp	Gly	Phe
		35					40					45			
Asn	Phe	Gln	Gly	Thr	Arg	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His
		50				55					60				
Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
65					70					75				80	
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85						90					95	
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
			100					105					110		
Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
			115				120					125			
Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
			130				135				140				
Glu	Asp	Gln	Ile	Val	His	His	Pro	Glu	Thr	Met	Pro	Ser	Glu	Asp	Tyr
145					150					155				160	
Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165						170					175	
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
			180					185				190			
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
		195					200					205			
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

210 215 220
 Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr
 225 230 235 240
 Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro
 245 250 255
 Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg
 260 265 270
 Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe
 275 280 285
 Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val
 290 295 300
 Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln
 305 310 315 320
 Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly
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 Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala
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 Phe His Cys
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<210> 3393
 <211> 510
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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<400> 3394
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<210> 3396
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3396
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 Leu Asn Asp Thr Tyr His Ser Arg Asp Ser Ser Phe Arg Leu Asp Ser
 35 40 45
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser
 50 55 60
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser
 65 70 75 80
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys
 85 90 95
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn
 100 105 110
 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser
 115 120 125
 Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg
 130 135 140
 Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr
 145 150 155 160
 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg
 165 170 175
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<210> 3397
 <211> 492
 <212> DNA
 <213> Homo sapiens

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<210> 3398
 <211> 163
 <212> PRT
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<400> 3398
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 Thr Leu Cys Ser Val Pro Ser Leu Glu Gln Gln Gln Pro Gly Xaa Ala
 35 40 45
 Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa
 50 55 60
 Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly
 65 70 75 80
 Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu
 85 90 95
 Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly
 100 105 110
 Trp Ala Ala Arg Arg Cys His Cys Leu Ser Val Ala Gly Val Ala Ala
 115 120 125
 Ala Ser Gly Cys Pro Arg Thr Glu Glu Ala Ala Trp Gly Glu Ile Leu
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 Lys Leu Gly

<210> 3399
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 420

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<210> 3400

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 3400

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Ile	Ser	Leu	Leu	Ser	Ala	Leu	Asn	Glu	Arg	Leu	Lys	Gly	Gln	Leu	
		20						25				30			
Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
		35					40					45			
Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
		50				55					60				
Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
65					70					75				80	
Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
				85					90					95	
Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
			100					105					110		
Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
		115					120					125			
Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
		130				135					140				
Asn	Ser	Ser	Gln	Lys	Arg	Ser	Val	Ile	Val	Cys	Gln	Ser	Arg	Asn	Glu
145				150						155				160	
Ala	Gln	Gly	Lys	Thr	Val	Ser	Gln	Asn	Gln	Pro	Asp	Val	Ser	His	Thr
			165						170					175	
Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
		180					185						190		
His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
		195					200					205			
Lys	Ser	Trp	Pro	Lys	Asp	Ser	Ser	Val	Val	Tyr	Ala	Lys	Ser	Leu	Glu
		210					215				220				
His	Ser	Gly	Ser	Leu	Asp	Asp	Pro	Asn	Arg	Ile	Ser	Leu	Val	Lys	Arg

225 230 235 240
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 245 250 255
 Asp Lys Pro Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu
 260 265 270
 Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
 275 280 285
 Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
 290 295 300
 Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
 305 310 315 320
 Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
 325 330 335
 Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
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 Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
 355 360 365
 Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
 370 375 380
 Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
 385 390 395 400
 Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
 405 410 415
 Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
 420 425 430
 Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
 435 440 445
 Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ala Ser Ser Ser Ser
 450 455 460
 Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
 465 470 475 480
 Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
 485 490 495
 Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
 500 505 510
 Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
 515 520 525
 Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
 530 535 540
 Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
 545 550 555 560
 Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
 565 570 575
 Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
 580 585 590
 Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
 595 600 605
 Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
 610 615 620
 Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
 625 630 635 640
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<211> 579

<212> DNA

<213> Homo sapiens

<400> 3401

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 240
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 300
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 360
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 420
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 480
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<210> 3402

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3402

Met	Pro	His	Phe	Gln	Thr	Leu	Gln	Ala	Ile	Val	Ser	His	Phe	Gln	Lys
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			20					25					30		
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40						45			
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
	50				55					60					
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65				70					75					80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85					90						95	
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100					105					110		
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
		130				135					140				
Ile	Phe	Thr	Val												
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<210> 3403

<211> 1696

<212> DNA

<213> Homo sapiens

<400> 3403

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120
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300
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360
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600
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720
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1380
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 1560
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 1680
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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln	35	40	45	
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly	50	55	60	
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu	65	70	75	80
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly	85	90	95	
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys	100	105	110	
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp	115	120	125	
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser	130	135	140	
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr	145	150	155	160
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln	165	170	175	
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala	180	185	190	
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu	195	200	205	
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp	210	215	220	
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe	225	230	235	240
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu	245	250	255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr	260	265	270	
Leu	Gln	Ala	Gln	Ser	Glu	Glu	Ala	Arg	Arg	Leu	Leu	Gly	Tyr			275	280	285	

<210> 3405

<211> 402

<212> DNA

<213> Homo sapiens

<400> 3405

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120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
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300
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<210> 3406

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3406

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Ile Glu Ser Ala Arg Gln Ala Gly Asp Ser Ala Lys Met Arg Arg Tyr
20           25           30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35           40           45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50           55           60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65           70           75           80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85           90           95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100          105          110
Met Pro Pro Gly Pro Cys Ser Pro Ser Gly Pro Val Ala Glu Pro
115          120          125
Pro Ala Arg Leu Gln Ala
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<210> 3407

<211> 535

<212> DNA

<213> Homo sapiens

<400> 3407

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120

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<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

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Ser	Ala	Gly	Thr	Phe	Pro	Gly	His	His	Ala	Phe	Ser	Ala	Val	Arg	Gln
	20					25						30			
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
	35				40					45					
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
	50				55					60					
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65					70				75					80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
			85					90					95		
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
		100					105					110			
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
	115						120					125			
Trp	Leu	Ile													
	130														

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 180
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 420
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 600
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<210> 3410

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

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Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
		35					40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
	50				55						60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
65					70					75				80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
				85					90					95	
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105					110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
		115					120					125			
Ser	Gln	Leu	Gln	Thr	Asn	His	Pro	Gln	Asp	Ser	Phe	Arg	Leu	Ser	Leu
		130				135						140			

<210> 3411

<211> 958

<212> DNA

<213> Homo sapiens

<400> 3411

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 180
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 420
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 1920
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 1980
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 2100
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 2280
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 2340
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 2700
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 2820
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 2880
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 2988

<210> 3422

<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

Met Ser Arg His Leu Pro Trp Ile Cys Asp Gln Arg Cys Ser Ser Pro
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20 25 30
 Phe Ser Ser Lys Thr Val Thr Val Leu Leu Leu Ala Gln Thr Thr Cys
 35 40 45
 Leu Leu Leu Phe Ile Ile Ser Arg Pro Gly Pro Ser Ser Pro Ala Gly
 50 55 60
 Gly Glu Asp Arg Val His Val Leu Val Leu Ser Ser Trp Arg Ser Gly
 65 70 75 80
 Ser Ser Phe Leu Gly Gln Leu Phe Ser Gln His Pro Asp Val Phe Tyr
 85 90 95
 Leu Met Glu Pro Ala Trp His Val Trp Thr Thr Leu Ser Gln Gly Ser
 100 105 110
 Ala Ala Thr Leu His Met Ala Val Arg Asp Leu Met Arg Ser Ile Phe
 115 120 125
 Leu Cys Asp Met Asp Val Phe Asp Ala Tyr Met Glu Pro Gly Pro Arg
 130 135 140
 Arg Gln Ser Ser Leu Phe Gln Trp Glu Asn Ser Arg Ala Leu Cys Ser
 145 150 155 160
 Ala Pro Ala Cys Asp Ile Ile Pro Gln Asp Glu Ile Ile Pro Arg Ala
 165 170 175
 His Cys Arg Leu Leu Cys Ser Gln Gln Pro Phe Glu Val Val Glu Lys
 180 185 190
 Ala Cys Arg Ser Tyr Ser His Val Val Leu Lys Glu Val Arg Phe Phe
 195 200 205
 Asn Leu Gln Ser Leu Tyr Pro Leu Leu Lys Asp Pro Ser Leu Asn Leu
 210 215 220
 His Ile Val His Leu Val Arg Asp Pro Arg Ala Val Leu Arg Ser Arg
 225 230 235 240
 Glu Ala Ala Gly Pro Ile Leu Ala Arg Asp Asn Gly Ile Val Leu Gly
 245 250 255
 Thr Asn Gly Lys Trp Val Glu Ala Asp Pro His Leu Arg Leu Ile Arg
 260 265 270
 Glu Val Cys Arg Ser His Val Arg Ile Ala Glu Ala Ala Thr Leu Lys
 275 280 285
 Pro Pro Pro Phe Leu Arg Gly Arg Tyr Arg Leu Val Arg Phe Glu Asp
 290 295 300
 Leu Ala Arg Glu Pro Leu Ala Glu Ile Arg Ala Leu Tyr Ala Phe Thr
 305 310 315 320
 Gly Leu Thr Leu Thr Pro Gln Leu Glu Ala Trp Ile His Asn Ile Thr
 325 330 335
 His Gly Ser Gly Ile Gly Lys Pro Ile Glu Ala Phe His Thr Ser Ser
 340 345 350
 Arg Asn Ala Arg Asn Val Ser Gln Ala Trp Arg His Ala Leu Pro Phe
 355 360 365
 Thr Lys Ile Leu Arg Val Gln Glu Val Cys Ala Gly Ala Leu Gln Leu
 370 375 380
 Leu Gly Tyr Arg Pro Val Tyr Ser Ala Asp Gln Gln Arg Asp Leu Thr
 385 390 395 400
 Leu Asp Leu Val Leu Pro Arg Gly Pro Asp His Phe Ser Trp Ala Ser
 405 410 415
 Pro Asp

<210> 3423

<211> 1851

<212> DNA

<213> Homo sapiens

<400> 3423

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120
cgttcattgg ccgtggcctc tctagctccg ccccttaggg gggtcgaccc cgtaaccagt
180
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240
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300
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360
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420
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480
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600
atttgagtg gcccctggag tcagtttctt acaccatccg aggccccacc cagcacgagc
660
tacagcctcc accaggaggg cctggaaccc tcagcctgca cttcctcaac cctcaggaag
720
ctcagcgggt ggcagtccta gtccgaggtg ccaccgtgga aggacagaat ggcagcaaga
780
gcaactcacc accagccttg ggcccagaag catgccctgt ctccctgcc agtcccccg
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960
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1080
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1140
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1260
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1320
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1380
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1440
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1500

agcctgceca gtccactcca gccagctgg tctgtcctt cctgcacctt catcaatgcc
 1560
 ccagaccgcc ctggctgtga gatgtgtagc acccagaggc cctgcacttg ggacccctt
 1620
 gctgcagctt ccacctagca gccaccagag gttacaaggg gagagtggcc cttccctcac
 1680
 aagtccgaca tctccaggcc cccactgaac tccggggacc tctactgact gcttgcctggg
 1740
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 1800
 caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
 1851

<210> 3424
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 3424
 Met Leu Trp Pro Gln Val Phe Ser Glu Leu Gly Phe Pro Pro Ala Val
 1 5 10 15
 Gln Arg Trp Val Ile Gly Arg Cys Leu Cys Val Pro Glu Arg Ser Leu
 20 25 30
 Ala Ser Tyr Gly Val Arg Gln Asp Gly Asp Pro Ala Phe Leu Tyr Leu
 35 40 45
 Leu Ser Ala Pro Arg Glu Ala Pro Ala Thr Gly Pro Ser Pro Gln His
 50 55 60
 Pro Gln Lys Met Asp Gly Glu Leu Gly Arg Leu Phe Pro Pro Ser Leu
 65 70 75 80
 Gly Leu Pro Pro Gly Pro Gln Pro Ala Ala Ser Ser Leu Pro Ser Pro
 85 90 95
 Leu Gln Pro Ser Trp Ser Cys Pro Ser Cys Thr Phe Ile Asn Ala Pro
 100 105 110
 Asp Arg Pro Gly Cys Glu Met Cys Ser Thr Gln Arg Pro Cys Thr Trp
 115 120 125
 Asp Pro Leu Ala Ala Ala Ser Thr
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<210> 3425
 <211> 1416
 <212> DNA
 <213> Homo sapiens

<400> 3425
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 120
 gaggaggaag tgaggccgcg cggaaggaag gcggcgagcc ccggggccccc gaggccttgg
 180
 ccgcgtcaca gcacccacat ggcctctgga gtgggcgcgg ccttcgagga actgcctcac
 240
 gacggcacgt gtgacgagt cgagcccgac gaggctccgg gggccgagga agtgtgccga
 300

gaatgcggt tctgctactg ccgccgccat gccgaggcgc acaggcagaa gttcctcagt
 360
 caccatctgg ccgaatacgt ccacggctcc caggcctgga ccccgccagc tgacggagag
 420
 ggggcgggga aggaagaagc ggaggtcaag gtggagcagg agaggagat agaaagcgag
 480
 gcaggggaag agagtgagtc ggaggaagag agcgagtcag aggaagagag cgagacagag
 540
 gaagagagtg aggatgagag cgatgaggag agtgaagaag acagcgagga agaaatggag
 600
 gatgagcaag aaagcgaggc cgaagaagac aaccaagaag aaggggaatc cgaggcggag
 660
 ggagaaactg aggcagaaag tgaatttgac ccagaaatag aaatggaagc agagagagtg
 720
 gccaaagga agtgtccgga ccatgggctt gatttgagta cctattgcc aagaatagg
 780
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 840
 ctagacgaag cctttgaaga attaagaagc aaagactcag gtggactgaa ggccgctatg
 900
 atcgaattgg tggaaagggt gaagttcaag agctcagacc ctaaagtaac tcgggaccaa
 960
 atgaagatgt ttatacagca ggaatttaag aaagttcaga aagtgattgc tgatgaggag
 1020
 cagaaggccc ttcatttagt ggacatccaa gaggcaatgg ccacagctca tgtgactgag
 1080
 atactggcag acatccaatc ccacatggat aggttgatga ctcagatggc ccaagccaag
 1140
 gaacaacttg atacctctaa tgaatcagct gagccaaagg cagagggcga tgaggaagga
 1200
 cccagtgggt ccagtgaaga agaggacaca tgaaggcttg ctacccccag tgaaaatcat
 1260
 cccctccctt tgtgtgtatg tgacagcgtg tatgtaacgg cttctgattt ctgtgaaagc
 1320
 tgctcagcaa caaacgtact tccaccagat gtgtccccag atccacagca ggcacatatc
 1380
 tctccaaggg atgaccagtt ttatgcttac tgtgtg
 1416

<210> 3426

<211> 410

<212> PRT

<213> Homo sapiens

<400> 3426

Ser	Gly	Gly	Lys	Gly	Leu	Cys	Cys	Cys	Ala	Arg	Ala	Gly	Ala	Ala	Ala
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Ala	Pro	Gly	Pro	Ala	Ser	Arg	Arg	Gly	Ala	Val	Gln	Ala	Gly	Gly	Asp
			20					25					30		
Ser	Leu	Gly	Arg	Asp	Pro	Gly	Arg	Glu	Glu	Glu	Val	Arg	Pro	Arg	Gly
		35					40					45			
Arg	Lys	Ala	Ala	Ser	Pro	Gly	Ala	Pro	Arg	Pro	Trp	Pro	Arg	His	Ser
	50					55					60				
Thr	His	Met	Ala	Ser	Gly	Val	Gly	Ala	Ala	Phe	Glu	Glu	Leu	Pro	His

65		70		75		80
Asp Gly Thr Cys	Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu					
	85		90		95	
Glu Val Cys Arg	Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu					
	100		105		110	
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His						
	115		120		125	
Gly Ser Gln Ala Trp Thr Pro Ala Asp Gly Glu Gly Ala Gly Lys						
	130		135		140	
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu						
145		150		155		160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu Glu						
	165		170		175	
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu						
	180		185		190	
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu						
	195		200		205	
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu						
	210		215		220	
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val						
225		230		235		240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys						
	245		250		255	
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala						
	260		265		270	
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu						
	275		280		285	
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val						
	290		295		300	
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln						
305		310		315		320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile						
	325		330		335	
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala						
	340		345		350	
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His						
	355		360		365	
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp						
	370		375		380	
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly						
385		390		395		400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr						
	405		410			

<210> 3427

<211> 580

<212> DNA

<213> Homo sapiens

<400> 3427

ggatcccctc tcttcaaaat tgtagacgcg tctccgagtc ctttcactca tcggaggctg
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cgggatttca atgtcatagt tcccattgtc aatgacatca tcggagaact tgacctgctg
120

gggctctggat tgagacttgg accttctgag cactggcaga tgtactggct tctcttcagg
 180
 caggattttc tctggacaca actctgaact tagactcttt aaggactctg cactcctgtg
 240
 cagcatggaa gagttcaaag ttcccatatt gctcatcttc tcacaatctt ctgtttccat
 300
 ctctcaaaa ttttgcagag aatacaatga tggccttggc ttgttttctc catccaccga
 360
 agccctgtg atattggaca atgcaaaga atccatcgaa tcccgaacac ttgctctgg
 420
 tttcaggtct gacagacact ccaggaatc ttcataccac tgtgtttcat catgattata
 480
 ccctgaagcc ccatgggtcca gttccaattc ctgaagcctt ctactgcttg cagggcctgg
 540
 gtggctgcc taagcagaat cgcccagtcc atcttgtgac
 580

<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

Met	Asp	Ser	Leu	Ala	Leu	Ser	Asn	Ile	Thr	Gly	Ala	Ser	Val	Asp	Gly
1			5					10					15		
Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
			20					25					30		
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
			35				40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
			50				55					60			
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
						70				75				80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
						85				90				95	
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
			100					105					110		
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
			115				120						125		
Glu	Arg	Gly	Ser												
			130												

<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 120
 gtcagcttcc ttttcatact ttcccggcgt tctctccacg agcaggtgca ccagggacct
 180

gtccctctgt cctacacggt caccacagt acgacccaag gcttcccctt gcctacaggc
 240
 cagcacatcc ctggctgcag tgcccagcag ctcccagcat gctccgtgat gttcagtggg
 300
 cagcattacc cctctgctg cctcccgcgc ccgcttatcc aggcgtgcac catgcagcag
 360
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 420
 cccccaccac cgggcacaca cccagcagct ccagggtctg tataagaaac cctgtggaag
 480
 gcccatccct gtcctaggcc acccaggcag gacactccac tggtaaggcc cacagcctca
 540
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 600
 ttgaaacact ctattaccaa atgtgaacac gcgt
 634

<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

Phe Leu Leu Arg Val Ala Leu Ala Val Ser Phe Leu Phe Ile Leu Ser
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 Arg Arg Ser Leu His Glu Gln Val His Gln Gly Pro Val Pro Leu Ser
 20 25 30
 Tyr Thr Val Thr Thr Val Thr Thr Gln Gly Phe Pro Leu Pro Thr Gly
 35 40 45
 Gln His Ile Pro Gly Cys Ser Ala Gln Gln Leu Pro Ala Cys Ser Val
 50 55 60
 Met Phe Ser Gly Gln His Tyr Pro Leu Cys Cys Leu Pro Pro Pro Leu
 65 70 75 80
 Ile Gln Ala Cys Thr Met Gln Gln Leu Pro Val Pro Tyr Gln Ala Tyr
 85 90 95
 Pro His Leu Ile Ser Ser Asp His Tyr Ile Leu His Pro Pro Pro Pro
 100 105 110
 Gly Thr His Pro Ala Ala Pro Gly Ser Val
 115 120

<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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 ccattctcac gctggcgccc ccgctgcatt gccactacgg ggccttcccc cctaattgct
 120
 ctgcgtggga gcagcgcccc aatgccagcg cgtaacgtcg ccagcgctgc cctagcacgc
 180
 agcgccgcca gccgtgtcgc caacagtacc aaatcgctcg gcagcggctt cgccccgccc
 240

gacttcaacc attgcctcaa ggattgggac tataatggcc ttcctgtgct caccaccaac
 300
 gccatcgggc agtgggatct ggtgtgtgac ctgggctggc aggtgatcct ggagcagatc
 360
 ctcttcacat tgggctttgc ctccggctac ctgttcctgg gttaccccg c agacagattt
 420
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 540
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 720
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 780
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 840
 catgggcaga tgctggggga ggaggcccag gaggccctgc aggacctgga gaatacctgc
 900
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 960
 aaaaatctgc ttatcctggg cttaccaaac ttcattgccc atgccattcg ccactgctac
 1020
 cagcctgttg gaggaggagg gagcccatcg gacttctacc tgtgctctct gctggccagc
 1080
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 1140
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 1200
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 1260
 gatctgaacg aggtgccat caccactttc tctgtccttg ggctcttctc ctcccaagct
 1320
 gccgccatcc tcagcacctt ccttgctgct gaggtcatcc ccaccactgt ccggggccgt
 1380
 ggctggggc tgatca
 1396

<210> 3432

<211> 296

<212> PRT

<213> Homo sapiens

<400> 3432

Met Ala Leu Arg Phe Leu Leu Gly Phe Leu Leu Ala Gly Val Asp Leu
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 Gly Val Tyr Leu Met Arg Leu Glu Leu Cys Asp Pro Thr Gln Arg Leu
 20 25 30
 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu
 35 40 45
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50		55		60											
Met	Ile	Thr	Ala	Pro	Cys	Ile	Leu	Phe	Leu	Phe	Tyr	Gly	Trp	Pro	Gly
65				70					75					80	
Leu	Phe	Leu	Glu	Ser	Ala	Arg	Trp	Leu	Ile	Val	Lys	Arg	Gln	Ile	Glu
			85					90					95		
Glu	Ala	Gln	Ser	Val	Leu	Arg	Ile	Leu	Ala	Glu	Arg	Asn	Arg	Pro	His
		100						105					110		
Gly	Gln	Met	Leu	Gly	Glu	Glu	Ala	Gln	Glu	Ala	Leu	Gln	Asp	Leu	Glu
	115						120						125		
Asn	Thr	Cys	Pro	Leu	Pro	Ala	Thr	Ser	Ser	Phe	Ser	Phe	Ala	Ser	Leu
130						135					140				
Leu	Asn	Tyr	Arg	Asn	Ile	Trp	Lys	Asn	Leu	Leu	Ile	Leu	Gly	Phe	Thr
145				150					155					160	
Asn	Phe	Ile	Ala	His	Ala	Ile	Arg	His	Cys	Tyr	Gln	Pro	Val	Gly	Gly
			165					170					175		
Gly	Gly	Ser	Pro	Ser	Asp	Phe	Tyr	Leu	Cys	Ser	Leu	Leu	Ala	Ser	Gly
		180						185					190		
Thr	Ala	Ala	Leu	Ala	Cys	Val	Phe	Leu	Gly	Val	Thr	Val	Asp	Arg	Phe
	195					200						205			
Gly	Arg	Arg	Gly	Ile	Leu	Leu	Leu	Ser	Met	Thr	Leu	Thr	Gly	Ile	Ala
210				215					220						
Ser	Leu	Val	Leu	Leu	Gly	Leu	Trp	Asp	Cys	Glu	His	Pro	Ile	Phe	Pro
225				230					235					240	
Thr	Val	Trp	Ala	Gln	Gln	Gly	Asn	Pro	Asn	Arg	Asp	Leu	Asn	Glu	Ala
			245					250					255		
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		260						265					270		
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<210> 3433

<211> 1257

<212> DNA

<213> Homo sapiens

<400> 3433

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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
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Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
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Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
				85				90						95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
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Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
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 Gly Leu Cys Val Gly Tyr Ser Ser Gln Gly Glu Asp Val Ile Tyr Pro
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 Ile Leu Pro Ser Arg Ala Leu Pro Pro Cys Leu Tyr His Asn Leu Pro
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 Tyr His His Pro Val Tyr Thr Ile His Pro Ser Thr Pro Ser Pro Leu
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 260 265 270
 Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser
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<210> 3435

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 3435

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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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		20						25					30		
Glu	Phe	Asn	Val	Ser	Cys	Leu	Thr	Asp	Ser	Asn	Ala	Asp	Thr	Tyr	Trp
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	50				55						60				
Lys	Gly	Thr	Ile	Val	Lys	Lys	Leu	Leu	Leu	Ala	Val	Asp	Thr	Thr	Asp
65				70					75					80	
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		100					105						110		
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	115					120					125				
Glu	Ile	Arg	Ile	Val	Glu	Cys	Arg	Asp	Asp	Gly	Ile	Asp	Val	Arg	Leu
	130				135					140					
Arg	Gly	Val	Lys	Ile	Lys	Ser	Ser	Arg	Gln	Arg	Glu	Leu	Gly	Leu	Asn
145				150					155					160	
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		165						170					175		
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Phe	Ile	Lys	Ile	Leu	Asp	Ser	Val	Leu	His	His	Leu	Val	Pro	Ala	Trp
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	210				215						220				
Leu	Leu	Leu	Ser	Arg	Gln	Arg	Pro	Gly	Leu	Val	Ala	Gln	Cys	Leu	Arg
225				230					235					240	
Asp	Ser	Glu	Ser	Ser	Lys	Pro	Ser	Phe	Met	Pro	Arg	Leu	Tyr	Ile	Asn
			245					250					255		
Arg	Arg	Leu	Ala	Met	Glu	His	Arg	Ala	Cys	Pro	Ser	Arg	Asp	Pro	Ala

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 Gln Trp Trp Glu Cys Lys Phe Ile Ala Glu Gly Ile Ile Asp Gln Gly
 305 310 315 320
 Gly Gly Phe Arg Asp Ser Leu Ala Asp Met Ser Glu Glu Leu Cys Pro
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 Ser Ser Ala Asp Thr Pro Val Pro Leu Pro Phe Phe Val Arg Thr Ala
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 Asn Gln Gly Asn Gly Thr Gly Glu Ala Arg Asp Met Tyr Val Pro Asn
 355 360 365
 Pro Ser Cys Arg Asp Phe Ala Lys Tyr Glu Trp Ile Gly Gln Leu Met
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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			20					25					30		
Glu	Ala	Glu	Pro	Gln	Trp	Glu	Arg	Glu	Gly	Ala	Arg	Phe	Thr	Thr	Pro

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Pro	Gly	Arg	Ala	Gln	Pro	Arg
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<210> 3439

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 3439

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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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Val	Ala	Ala	Ala	Ala	Arg	Trp	Pro	Arg	Gln	Pro	Arg	His	Pro	Arg	His
			35				40					45			
Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly	Pro
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		195					200					205			
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	210					215					220				
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225					230					235				240	
Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu	Arg
			245					250					255		
Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu	Phe

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<211> 2074

<212> DNA

<213> Homo sapiens

<400> 3441

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 2074

<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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 35 40 45
 Thr Val Asp Pro Cys His Lys Phe Thr Trp Cys Leu Asp Ala Cys Ile
 50 55 60
 Arg Glu Arg Phe Val Asp Ser Lys Arg Ala Arg Glu Leu Gln Gly Phe
 65 70 75 80
 Leu Asp Asp Val Lys Lys Gly Gln Glu Gln Val Leu Gly Asp Leu Ser
 85 90 95
 Met Ile Leu Cys Asp Pro Phe Ala Ile Asn Thr Leu Ala Leu Ser Thr
 100 105 110
 Val Arg His Leu Gln Glu Leu Val Gly Gln Glu Thr Leu Pro Arg Asp
 115 120 125
 Ser Pro Asp Leu Leu Leu Leu Leu Arg Leu Leu Ala Leu Gly Gln Gly
 130 135 140
 Ala Trp Asp Met Ile Asp Ser Gln Val Phe Lys Glu Pro Lys Met Glu
 145 150 155 160
 Val Glu Leu Ile Thr Arg Phe Leu Pro Met Leu Met Ser Phe Leu Val

165 170 175
 Asp Asp Tyr Thr Phe Asn Val Asp Gln Lys Leu Pro Ala Glu Glu Lys
 180 185 190
 Ala Pro Val Ser Tyr Pro Asn Thr Leu Pro Glu Ser Phe Thr Lys Phe
 195 200 205
 Leu Gln Glu Gln Arg Met Ala Cys Glu Val Gly Leu Tyr Tyr Val Leu
 210 215 220
 His Ile Thr Lys Gln Arg Asn Lys Asn Ala Leu Leu Arg Leu Leu Pro
 225 230 235 240
 Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu
 245 250 255
 His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu
 260 265 270
 Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser
 275 280 285
 Pro Arg Lys Glu Asn Val His Arg His Ala Leu Arg Leu Leu Ile His
 290 295 300
 Leu His Pro Arg Val Ala Pro Ser Lys Leu Glu Ala Leu Gln Lys Ala
 305 310 315 320
 Leu Glu Pro Thr Gly Gln Ser Gly Glu Ala Val Lys Glu Leu Tyr Ser
 325 330 335
 Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro
 340 345 350
 Ala Gln Ala Ala Glu Thr Pro Ala Leu Glu Leu Pro Leu Pro Ser Val
 355 360 365
 Pro Ala Pro Ala Pro Leu
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<210> 3443

<211> 2070

<212> DNA

<213> Homo sapiens

<400> 3443

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1920
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2040
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2070

<210> 3444

<211> 579

<212> PRT

<213> Homo sapiens

<400> 3444

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 35 40 45
 Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
 50 55 60
 Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
 65 70 75 80
 Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
 85 90 95
 Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
 100 105 110
 Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
 115 120 125
 Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
 130 135 140
 Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
 145 150 155 160
 Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
 165 170 175
 Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
 180 185 190
 Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
 195 200 205
 Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
 210 215 220
 Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
 225 230 235 240
 Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
 245 250 255
 Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
 260 265 270
 Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
 275 280 285
 Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
 290 295 300
 Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
 305 310 315 320
 Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
 325 330 335
 Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
 340 345 350
 Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
 355 360 365
 Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
 370 375 380
 Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
 385 390 395 400
 Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

405 410 415
 His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val
 420 425 430
 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala
 435 440 445
 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr
 450 455 460
 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu
 465 470 475 480
 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu
 485 490 495
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln
 500 505 510
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys
 515 520 525
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp
 530 535 540
 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr
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<210> 3445

<211> 2086

<212> DNA

<213> Homo sapiens

<400> 3445

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 300
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 720

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1980
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2086

<210> 3446

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3446

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      20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
      35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
      50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
      65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
      85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
      100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
      115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
      130          135          140
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
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Pro Ala Ser Gln Asn Asn Leu Arg His
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<210> 3447

<211> 936

<212> DNA

<213> Homo sapiens

<400> 3447

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720
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780

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 900
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 936

<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

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		20					25						30		
Leu	Leu	Glu	Gly	Gln	Glu	Pro	Asp	Gly	Val	Arg	Phe	Asp	Arg	Glu	Arg
		35				40					45				
Ala	Arg	Arg	Leu	Trp	Glu	Ala	Val	Ser	Gly	Ala	Gln	Pro	Val	Gly	Arg
	50				55					60					
Glu	Glu	Val	Glu	His	Met	Ile	Gln	Lys	Asn	Gln	Cys	Leu	Phe	Thr	Asn
65				70					75					80	
Thr	Gln	Cys	Lys	Val	Cys	Cys	Ala	Leu	Leu	Ile	Ser	Glu	Ser	Gln	Lys
		85						90					95		
Leu	Ala	His	Tyr	Gln	Ser	Lys	Lys	His	Ala	Asn	Lys	Val	Lys	Arg	Tyr
		100					105						110		
Leu	Ala	Ile	His	Gly	Met	Glu	Thr	Leu	Lys	Gly	Glu	Thr	Lys	Lys	Leu
		115				120					125				
Asp	Ser	Asp	Gln	Lys	Ser	Ser	Arg	Ser	Lys	Asp	Lys	Asn	Gln	Cys	Cys
	130				135					140					
Pro	Ile	Cys	Asn	Met	Thr	Phe	Ser	Ser	Pro	Val	Val	Ala	Gln	Ser	His
145				150					155					160	
Tyr	Leu	Gly	Lys	Thr	His	Ala	Lys	Asn	Leu	Lys	Leu	Lys	Gln	Gln	Ser
		165					170						175		
Thr	Lys	Val	Glu	Ala	Leu	His	Gln	Asn	Arg	Glu	Met	Ile	Asp	Pro	Asp
		180					185					190			
Lys	Phe	Cys	Ser	Leu	Cys	His	Ala	Thr	Phe	Asn	Asp	Pro	Val	Met	Ala
	195					200					205				
Gln	Gln	His	Tyr	Val	Gly	Lys	Lys	His	Arg	Lys	Gln	Glu	Thr	Lys	Leu
	210				215					220					
Lys	Leu	Met	Ala	Arg	Tyr	Gly	Arg	Leu	Ala	Asp	Pro	Ala	Val	Thr	Asp
225				230					235					240	
Phe	Pro	Ala	Gly	Lys	Gly	Tyr	Pro	Cys	Lys	Thr	Cys	Lys	Ile	Val	Leu
		245					250						255		
Asn	Ser	Ile	Glu	Gln	Tyr	Gln	Ala	His	Val	Ser	Gly	Phe	Lys	His	Lys
		260					265					270			
Asn	Gln	Ser	Pro	Lys	Thr	Val	Ala	Ser	Ser	Leu	Gly	Gln	Ile	Pro	Met
	275					280						285			
Gln	Arg	Gln	Pro	Ile	Gln	Lys	Asp	Ser	Thr	Thr	Leu	Glu	Asp		
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<210> 3449

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3449

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 120
 ccggcccttc tggccggcac caaccccggt gctgtcgtcg cggatggagg cagttgcccc
 180
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 240
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 300
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 360
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 720
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 780
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 877

<210> 3450

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3450

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			20					25					30		
Ser	Val	Thr	Ala	Asn	Ser	Gln	Ser	Pro	Ala	Leu	Leu	Ala	Gly	Thr	Asn
		35				40						45			
Pro	Val	Ala	Val	Val	Ala	Asp	Gly	Gly	Ser	Cys	Pro	Ala	His	Tyr	Pro
	50				55					60					
Val	His	Glu	Cys	Val	Phe	Lys	Gly	Asp	Val	Arg	Arg	Leu	Ser	Ser	Leu
65				70					75					80	
Ile	Arg	Thr	His	Asn	Ile	Gly	Gln	Lys	Asp	Asn	His	Gly	Asn	Thr	Pro
			85					90					95		
Leu	His	Leu	Ala	Val	Met	Leu	Gly	Asn	Lys	Glu	Cys	Ala	His	Leu	Leu

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      115              120              125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130              135              140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145              150              155              160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165              170              175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180              185              190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195              200              205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210              215              220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225              230              235              240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
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      260              265              270
Phe Asn Glu Gln
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<210> 3451

<211> 595

<212> DNA

<213> Homo sapiens

<400> 3451

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<210> 3452

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3452

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Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
             35             40             45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
             50             55             60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65             70             75             80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
             85             90             95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
             100            105            110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
             115            120            125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
             130            135            140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145            150            155            160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
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<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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<210> 3454

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3454

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 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
 35 40 45
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile
 50 55 60
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
 65 70 75 80
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
 85 90 95
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
 100 105 110
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
 115 120 125
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 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu
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<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro	35	40	45	
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met	50	55	60	
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr	65	70	75	80
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg	85	90	95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly	100	105	110	
Val	Ile	Phe	Pro	Gln															

115

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 <211> 646
 <212> DNA
 <213> Homo sapiens

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<210> 3458
 <211> 61
 <212> PRT
 <213> Homo sapiens

<400> 3458
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<210> 3459
 <211> 592
 <212> DNA
 <213> Homo sapiens

<400> 3459
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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35				40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50					55				60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65					70				75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100				105						110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55					60				
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
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Val	Ile	Thr	Val	His											
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<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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			20					25					30		
Glu	Leu	Pro	Glu	Arg	Arg	Arg	Arg	Gln	Gln	Arg	Gln	Gly	Lys	His	His

35 40 45
 Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala
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 Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg
 65 70 75 80
 Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Phe Phe Val Val Met
 85 90 95
 Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly
 100 105 110
 Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val
 115 120 125
 Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu
 130 135 140
 Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met
 145 150 155 160
 Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu
 165 170 175
 Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu
 180 185 190
 Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala
 195 200 205
 Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile
 210 215 220
 Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu
 225 230 235 240
 Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu
 245 250 255
 Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys
 260 265 270
 Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala
 275 280 285
 Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val
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 Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys
 305 310 315 320
 Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His
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 Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu
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 Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln
 370 375 380
 Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu
 385 390 395 400
 Gln Ser Ser Asp Leu Gly Val Lys Gln Lys Ser Glu Leu Asn Ser Arg
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<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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240
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2880
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2904

<210> 3466

<211> 315

<212> PRT

<213> Homo sapiens

<400> 3466

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 20 25 30
 Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
 35 40 45
 Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
 50 55 60
 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg
 65 70 75 80
 Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
 85 90 95
 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
 100 105 110
 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
 115 120 125
 Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
 130 135 140
 Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
 145 150 155 160
 Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
 165 170 175
 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
 180 185 190
 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
 195 200 205
 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
 210 215 220
 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
 225 230 235 240
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
 245 250 255
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
 260 265 270
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
 275 280 285
 His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
 290 295 300
 Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe
 305 310 315

<210> 3467

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3467

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 ggtctgaggt gaaggtccta ggagcatcag ttctctgttg ggatcaaggt tgctgggaca
 180

gagcttgatc cctgtcaact gctaaaacaa tccaggacaa tccaatagta gagctgaatt
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 300
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 420
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 480
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 540
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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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Tyr	Asp	Phe	Pro	Pro	Leu	Cys	Met	Ser	Gly	Leu	His	Asp	Phe	Gln	Phe
			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35				40						45			
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
	50					55				60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
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<210> 3469

<211> 1710

<212> DNA

<213> Homo sapiens

<400> 3469

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 120
 aacaaagaac cgccggcgcc ggcccagcag ctgcagccgc agcctgtggc tgtgcagggc
 180
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 240
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 300
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 360

cgctataacc gcctgaccgt gctggctggt gcaatgcttg ccttgggact aatgacatgc
420
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480
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aaaaacagtc aatatttgac aatgtggaat taccaaatta aaagagaata ctatgaatgt
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<210> 3470

<211> 322

<212> PRT

<213> Homo sapiens

<400> 3470

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 Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
 35 40 45
 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
 50 55 60
 Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
 65 70 75 80
 Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
 85 90 95
 Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
 100 105 110
 Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
 115 120 125
 Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
 130 135 140
 Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
 145 150 155 160
 Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
 165 170 175
 Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
 180 185 190
 Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
 195 200 205
 Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
 210 215 220
 Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
 225 230 235 240
 Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
 245 250 255
 Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
 260 265 270
 Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
 275 280 285
 Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
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 Val Phe Leu Ala Phe Ala Phe Ser Ala Leu Phe Ile Ser Pro Asp Ser
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 Gly Phe

<210> 3471

<211> 2335

<212> DNA

<213> Homo sapiens

<400> 3471

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 120
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 180

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 2335

<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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			20						25				30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55					60				
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65				70						75				80	
Ser	Glu	Gln	Val	Leu	Cys	Ala	Ser	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
			85					90						95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
		100						105					110		
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
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Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
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Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
			165					170					175		
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
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Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
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Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

225 230 235 240
 Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
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 Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
 260 265 270
 Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
 275 280 285
 Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
 290 295 300
 Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
 305 310 315 320
 Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
 325 330 335
 Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
 340 345 350
 Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
 355 360 365
 Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
 370 375 380
 Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
 385 390 395 400
 Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
 405 410 415
 Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
 420 425 430
 His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
 435 440 445
 Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
 450 455 460
 Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
 465 470 475 480
 Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
 485 490 495
 Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
 500 505 510
 Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
 515 520 525
 Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
 530 535 540
 Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
 545 550 555 560
 Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
 565 570 575
 Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
 580 585 590
 Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
 595 600 605
 Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
 610 615 620
 Arg Val Pro Leu Ser Tyr Pro
 625 630

<210> 3473

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

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120
gcgccatgcc cgggccggac tgagtgcgcg cgggcgagaa tggcgtacat ccagttggaa
180
ccattaaacg agggttttct ttctagaatc tctggtctgc tgctgtgcag atcgacctgc
240
cggcactgct gtcagaagtg ctacgagtc agctgttgcc agtcaagtga ggatgaagtt
300
gaaattctgg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt
360
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgctgacccc acggaccaat
420
tcccgggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg
480
aggatttcga gtcttgagtc aagacgtccc agctctccac tcatcgatat taaacccatc
540
gagtttggcg ttctcagcgc caagaaggag cccatccaac cttcgggtgct cagacggacc
600
tataaccccg acgactatct caggaagttc gaacccacc tgtactccct cgactccaac
660
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcatg
720
ctgcacttca gcaactcagta cgacctgctg cacaaccacc tcaccgtgcg cgtgatcgag
780
gccagggacc tgccacctcc catctccac gatggctcgc gccaggacat ggcgcactcc
840
aaccctacg tcaagatctg tctcctgcca gaccagaaga actcaaagca gaccggggtc
900
aaacgcaaga ccagaagcc cgtgtttgag gagcgtaca ccttcgagat ccccttctg
960
gaggccaga ggaggacct gtcctgacc gtggtggatt ttgataagtt cttccgccac
1020
tgtgtcattg ggaaagttc tgtgcctttg tgtgaagttg acctggtcaa gggcgggcac
1080
tggtggaagg cgctgattcc cagttctcag aatgaagtgg agctggggga gctgcttctg
1140
tcactgaatt atctcccaag tgctggcaga ctgaatgttg atgtcattcg agccaagcaa
1200
cttcttcaga cagatgtgag ccaaggttca gaccttttg tgaaaatcca gctggtgcat
1260
ggactcaaac ttgtgaaaac caagaagacg tccttcttaa ggggcacaat tgatcctttc
1320
tacaatgaat ccttcagctt caaagttccc caagaagaac tggaaaatgc cagcctagtg
1380
tttacagttt tcggccacaa catgaagagc agcaatgact tcatcgggag gatcgtcatt
1440
ggccagtact cttcaggccc ctctgagacc aaccactgga ggcgcatgct caacacgcac
1500

cgcacagccg tggagcagtg gcatagcctg aggtcccgag ctgagtgtga ccgcgtgtct
 1560
 cctgcctccc tggaggtgac ctgagggctg caggggaaggc agcttttcatt tgtttaaaaa
 1620
 aaaaaagacg gaaaaaaatg tggtcacatac tattacatcc
 1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
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Ile	Ser	Gly	Leu	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln
			20					25					30		
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
		35					40					45			
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65					70					75					80
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85					90					95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
			100					105					110		
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
		115					120					125			
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145					150					155					160
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Val	Asp	Ser	Leu	Thr	Asp	
				165				170						175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
		180					185						190		
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
	195					200						205			
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215					220				
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225					230					235					240
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
			245						250					255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Leu	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
		260					265						270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
		275					280					285			
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295					300				
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305					310					315					320
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
465          470

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<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

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acgcgtctgg agggctggtt cttctgcacg cccgcccgca agctgctctg gctggtgctg
60
cagcccttct tctactcaact acggccgctc tgcgtccacc ccaaggccgt gacccgcatg
120
gaggtgctca acacgctggt gcagctggcg gccgacctgg ccattcttgc cctttggggg
180
ctcaagcccc tggtctacct gctggccagc tccttcctgg gcctgggcct gcaccccatc
240
tcggggccact tcgtggccga gcactacatg ttcttcaagg gccacgagac ctactcctac
300
tatgggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

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<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

```

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1          5          10          15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
    35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
    50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
    65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
                85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
    100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
    115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
    130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
    145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
                165                170

```

<210> 3477

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3477

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gcgcgcctcg gctgcctgcc cggcgggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctcct gcatcgaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg acttttgctgc ccgagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttggtgt tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaata tctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctt agaaggcatc ctgatcatct tgtaca
356

```

<210> 3478

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
  1                5                10                15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
    20                25                30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
    35                40                45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
    50                55                60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

[illegible]

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<210> 3479
<211> 797
<212> DNA
<213> Homo sapiens
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<400> 3479
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60
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120
gagtatctca tgtacctcaa caccgcggt gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaattccg
240
aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacccc actactctc ggccatcatc gtggcctcct acctgggtccg gatgccaccc
420
ttcaccaggt cttctgcgc tctgcaggtg agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgcctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattgggtcc
600
aggattctgg ctaccagcc aaggcaggt gttcttctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttgagac tagaaaggca
780
ggcgggtcaag gattaga
797

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<210> 3480
<211> 192
<212> PRT
<213> Homo sapiens
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<400> 3480
Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
 1                               5                10              15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
      20                               25              30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```

```
<210> 3481
<211> 1794
<212> DNA
<213> Homo sapiens
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2649

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 900
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat
 960
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccagaga gagtgcacct
 1020
 ccaggactat cgctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag
 1080
 agtccctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc
 1140
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccagga
 1200
 tgtggacccc aggccctgagg ctgaggaaga ggagctcccc tggtgctgca tctgcaatga
 1260
 ggatgccacc ctacgctgcg ctggctgcga tggggacctc ttctgtgccc gctgcttccg
 1320
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctccacg
 1380
 tgcaggccaa gagcactgaa gacaccctgg tctcccga agggcagtc caccaggcagc
 1440
 ggcacccatt tctgggcccc gccacaggac gtccgatggg agagcttgtc tggctctact
 1500
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaaa gattctccat
 1560
 tcgagagaat gactgggagg gaagaagtcg gggccctcct attagaagcc cagactggaa
 1620
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct
 1680
 ctagggcaca ggccctcccc ctggcactta gtgggtctaa taaagtatgt tgattcattg
 1740
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa
 1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
1				5				10					15		
Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
			20				25					30			
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35				40				45					
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
	50				55				60						
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65				70				75			80				
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
			85			90				95					
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
		100				105				110					
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

			115					120					125			
Arg	Gln	Glu	Asn	Lys	Pro	Lys	Leu	Val	Pro	Ser	Gln	Ala	Glu	Ile	Glu	
	130					135					140					
Ala	Arg	Leu	Ala	Ala	Leu	Lys	Asp	Glu	Arg	Gln	Gly	Ser	Ile	Pro	Ser	
145					150					155					160	
Thr	Gln	Glu	Met	Glu	Ala	Arg	Leu	Ala	Ala	Leu	Gln	Gly	Arg	Val	Leu	
			165						170					175		
Pro	Ser	Gln	Thr	Pro	Gln	Pro	Gly	Thr	Ser	His	Thr	Gly	His	Gln	Asp	
		180						185					190			
Pro	Ser	Pro	Ala	Asp	Thr	Gly	Ser	Ala	Asn	Ala	Ala	Gly	Ser			
	195						200					205				

<210> 3483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3483

2400> 3483
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 60
 gacttcgagt gggctctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
 120
 aagtaccgga ccatcaaggc cctgatgcgg ccagaccgcg gcctcaagtg ggcgggggctg
 180
 gtgctgggtgc tgggtgcagat gctggcctgc tggctgggtgc gcgggctggc ctggcgctgg
 240
 ctgctgttct gggcctacgc ctttgggtggc tgcgtgaacc actcgctgac gctggccatc
 300
 cacgacatct cgcacaacgc ggcccttcggc acggggccgtg cggcacgcaa ccgctgggctg
 360
 gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccc cctccttcaa gaagtaccac
 420
 gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cacgcgt
 477

<210> 3484

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3484

Met	Gly	Asn	Ser	Ala	Ser	Arg	Asn	Asp	Phe	Glu	Trp	Val	Tyr	Thr	Asp
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Gln	Pro	His	Thr	Gln	Arg	Arg	Lys	Glu	Ile	Leu	Ala	Lys	Tyr	Pro	Ala
			20					25					30		
Ile	Lys	Ala	Leu	Met	Arg	Pro	Asp	Pro	Arg	Leu	Lys	Trp	Ala	Gly	Leu
		35					40					45			
Val	Leu	Val	Leu	Val	Gln	Met	Leu	Ala	Cys	Trp	Leu	Val	Arg	Gly	Leu
	50				55						60				
Ala	Trp	Arg	Trp	Leu	Leu	Phe	Trp	Ala	Tyr	Ala	Phe	Gly	Gly	Cys	Val
65					70					75				80	
Asn	His	Ser	Leu	Thr	Leu	Ala	Ile	His	Asp	Ile	Ser	His	Asn	Ala	Ala
				85					90					95	
Phe	Gly	Thr	Gly	Arg	Ala	Ala	Arg	Asn	Arg	Trp	Leu	Ala	Val	Phe	Ala

100 105 110
 Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
 115 120 125
 Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
 130 135 140
 Pro Thr Arg
 145

<210> 3485
 <211> 812
 <212> DNA
 <213> Homo sapiens

<400> 3485
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 60
 tgcattgctta aaacatttaa ttttctatta tacagttaaa catttgcttg aattcagtga
 120
 gtctaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attggtgaag
 180
 caatctagtt attggcaaat tctaacacat ggtaagggtgt gggggaaagg atttaaaata
 240
 acagaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcactt taacaaaaat
 300
 ttatttaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
 360
 cctcatccgg ttattttatg tctttttggg aggaagggag atgaggggtt ttgtttttta
 420
 acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
 480
 ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
 540
 atgagtccag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac
 600
 attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
 660
 ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcatcacta
 720
 tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
 780
 ggaacacgca tgtccttaaa ctcaaaggat cc
 812

<210> 3486
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 3486
 Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
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 Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
 20 25 30
 Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

35	40	45
Leu Thr Ile Ser Glu Glu Thr Leu Ala Asn Asn Thr Trp Ser Leu Met		
50	55	60
Leu Lys Glu Val Leu Ser Ser Ile Leu Lys Val Pro Glu Gly Phe Phe		
65	70	75
Ser Gly Leu Ile Leu Leu Ser Glu Leu Leu Pro Leu Pro Leu Pro Met		80
85	90	95
Gln Thr Thr Gln Val Ser Leu Pro His Asn Met His Leu Ile Asn Asp		
100	105	110
Cys Ser Asn Thr Phe		
115		

<210> 3487

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3487

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 60
 ccaagcaatc catcacacaa agaggggaaa gggtaatatt ctgagttata aatcttttac
 120
 cctgtctgat aaaaatagaa gcctgaaagt ttaaattttt cctggattta aatttaaaga
 180
 taaatttggt tttcagtgaa atatcctcaa tagcaatttt accaaagagg ccttcttctg
 240
 aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
 300
 tggccaggcg tggctgtcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
 360
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 420
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 tactacatcc caggcagtgt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
 600
 aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
 660
 tgtaatcat gaaacatttt gattttttta aaattttaac tacagtcaac cttaatttca
 720
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<210> 3488

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3488

Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
1 5 10 15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

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      20      25      30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
      35      40      45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
      50      55

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<210> 3489
 <211> 288
 <212> DNA
 <213> Homo sapiens

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<400> 3489
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120
gcccaggggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg cggggcgagg tggtcacac
240
ctgtaatccc agcactttgg agagccccaa gacgacggat cacgagtc
288

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<210> 3490
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 3490
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1      5      10      15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
20      25      30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
35      40      45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
50      55      60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65      70      75      80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
85      90

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<210> 3491
 <211> 568
 <212> DNA
 <213> Homo sapiens

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<400> 3491
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120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

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tcgtttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat
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 300
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga ccggcctcct catgagctca
 360
 ggagacgtgc ggatcgtecg gatctggggac acagaccgtg agatgaaggt gcaggacatc
 420
 cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccacg ctcactcatc
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 540
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 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
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Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
		20						25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
		50				55					60				
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70					75				80	
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85					90					95		
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
		100					105						110		
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
	115					120					125				
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
	130				135						140				
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155				160	
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
			165					170						175	
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
			180					185							

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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120
aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga ccatgaggac
180
aatgaccctt cagatgtaga tcagcacagt ggatcagaag cccctaata tgaatgaagac
240
gaaggtcata gatcggtatg agggagccat cattcagaag cagaaggttc tgaaaaagca
300
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaag
360
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420
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat
480
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggta
540
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct
600
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac
660
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat
720
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg
780
gatagtgaac ctgaggtgcc aaaagataat agtggaaacca tggatttatt tggaggtgca
840
gatgatattc cttcagggag tgatggagaa gacaaaccac ctactccagg acagcctggt
900
gatgaaaatg gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata
960
gaagtagaaa taccctaaatg aaacactgat ttaggaaacg acttatattt tgttaaatg
1020
ccaactttc tcagtgtaga gcccagacct ttgtatctc agtattatga agatgaattt
1080
gaagatgaag aaatgctgga tgaagaaggc agaaccaggc taaaattaaa ggtagaaaat
1140
actataagat ggaggatagc ccgagatgaa gaaggaaatg aaattaaaga aagcaatgct
1200
cggatagtca agtggtcaga tggagcatg tccctgcatt taggcaatga agtggttgat
1260
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggt
1320
ctacaggac aagcagtctt taaagcgaaa ctcaccttca gacctactc tacggacagt
1380
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaagac acagaagatt
1440
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1500
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag
1560
aaacagcacc agcgggggct gaggccagc tacctggaac ctgatcgata cgatgaggag
1620
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1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa
 1740
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggtga accttcgga
 1800
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 1860
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 1920
 ttgtacagtt ataaatatgt aaacatgagt tattttgatt gaaatgaatc gatttgcttt
 1980
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 2040
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 2100
 aggtggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggaggctgag
 2160
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 2220
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<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly	20	25	30	
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn	35	40	45	
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser	50	55	60	
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp	65	70	75	80
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	Ser	Glu	Ala	Glu	Gly		85	90	95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys	100	105	110	
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu	115	120	125	
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp	130	135	140	
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp	145	150	155	160
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp	165	170	175	
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp	180	185	190	
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser	195	200	205	
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp				

210	215	220
Asp Glu Glu Glu Gln	Asp His Lys Ser Glu	Ser Ala Arg Gly Ser Asp
225	230	235
Ser Glu Asp Glu Val	Leu Arg Met Lys Arg	Lys Asn Ala Ile Ala Ser
245	250	255
Asp Ser Glu Ala Asp	Ser Asp Thr Glu Val	Pro Lys Asp Asn Ser Gly
260	265	270
Thr Met Asp Leu Phe	Gly Gly Ala Asp Asp	Ile Ser Ser Gly Ser Asp
275	280	285
Gly Glu Asp Lys Pro	Pro Thr Pro Gly Gln	Pro Val Asp Glu Asn Gly
290	295	300
Leu Pro Gln Asp Gln	Gln Glu Glu Glu Pro	Ile Pro Glu Thr Arg Ile
305	310	315
Glu Val Glu Ile Pro	Lys Val Asn Thr Asp	Leu Gly Asn Asp Leu Tyr
325	330	335
Phe Val Lys Leu Pro	Asn Phe Leu Ser Val	Glu Pro Arg Pro Phe Asp
340	345	350
Pro Gln Tyr Tyr Glu	Asp Glu Phe Glu Asp	Glu Glu Met Leu Asp Glu
355	360	365
Glu Gly Arg Thr Arg	Leu Lys Leu Lys Val	Glu Asn Thr Ile Arg Trp
370	375	380
Arg Ile Arg Arg Asp	Glu Glu Gly Asn Glu	Ile Lys Glu Ser Asn Ala
385	390	395
Arg Ile Val Lys Trp	Ser Asp Gly Ser Met	Ser Leu His Leu Gly Asn
405	410	415
Glu Val Phe Asp Val	Tyr Lys Ala Pro Leu	Gln Gly Asp His Asn His
420	425	430
Leu Phe Ile Arg Gln	Gly Thr Gly Leu Gln	Gly Gln Ala Val Phe Lys
435	440	445
Ala Lys Leu Thr Phe	Arg Pro His Ser Thr	Asp Ser Ala Thr His Arg
450	455	460
Lys Met Thr Leu Ser	Leu Ala Asp Arg Cys	Ser Lys Thr Gln Lys Ile
465	470	475
Arg Ile Leu Pro Met	Ala Gly Arg Asp Pro	Glu Cys Gln Arg Thr Glu
485	490	495
Met Ile Lys Lys Glu	Glu Glu Arg Leu Arg	Ala Ser Ile Arg Arg Glu
500	505	510
Ser Gln Gln Arg Arg	Met Arg Glu Lys Gln	His Gln Arg Gly Leu Ser
515	520	525
Ala Ser Tyr Leu Glu	Pro Asp Arg Tyr Asp	Glu Glu Glu Gly Glu
530	535	540
Glu Ser Ile Ser Leu	Ala Ala Ile Lys Asn	Arg Tyr Lys Gly Gly Ile
545	550	555
Arg Glu Glu Arg Ala	Arg Ile Tyr Ser Ser	Asp Ser Asp Glu Gly Ser
565	570	575
Glu Glu Asp Lys Ala	Gln Arg Leu Leu Lys	Ala Lys Lys Leu Thr Ser
580	585	590
Asp Glu Glu Gly Glu	Pro Ser Gly Lys Arg	Lys Ala Glu Asp Asp Asp
595	600	605
Lys Ala Asn Lys Lys	His Lys Lys Tyr Val	Ile Ser Asp Glu Glu Glu
610	615	620
Glu Asp Asp Asp		
625		

<210> 3495
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<400> 3495
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 120
 gcgtccccgg aggagatcaa gaaggcctat cggaagctgg cgctcaagta ccaccggac
 180
 aagaaccgg atgagggcga gaagtttaaa ctcatatccc aggcataatga agtgctttca
 240
 gatccaaaga aaagggatgt ttatgaccaa ggcgagagc aggcattaa agaaggaggc
 300
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgt
 360
 ggacggatgg ctagagagag aagaggcaag aatgttgtag accagttatc tgtaactctt
 420
 gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtag
 480
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgct gtgcaagggg
 540
 cggggggatgc agatccacat ccagcagatc gggccgggca tggtagcga gatccagacc
 600
 gtgtgcatcg agtgcaaggg ccagggtgag cgcatacaacc ccaaggaccg ctgagagagc
 660
 tgcagcgggg ccaaggatgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt
 720
 atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag
 780
 cctggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggg
 840
 catgacttga tcatgaaaat gaaaattcag ctttctgaag ctctttgtgg cttcaagaag
 900
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaaagcagg tgagggtgata
 960
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg
 1020
 gaaaaaggga ttctgatcat acagttttta gtaatctttc ctganaaaca ctggctttct
 1080
 ctgga
 1085

<210> 3496
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 3496
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 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys

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<210> 3497
<211> 1638
<212> DNA
<213> Homo sapiens
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<400> 3497
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120
tttttagtat atccttctaa aaagttttcc tgagaatttt tagtttggcc tctcaagttt
180
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ccttatttta ccttttctta aattacctcc ctcttcctt agtgaaatga gccttccttc
240
agcatacgca acttatcctt attgcttttt tcatacccaa ttttttgttt tatctctttc
300
agccaactgg gtcctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga
360
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420
tggtgctgtt gttgcagctg ctctgcctc actgtgagga atgaagaaag aggggaaaat
480
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgccaa
540
aaccctactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc
600
ccagcaggaa gaaacctttt cagagagttc ctccgaacag aatacagtga agagaacctt
660
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720
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780
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840 aacttcagat atatacttta atgcacagag attcttttcc aagggttttg 900
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960
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1020
catcagaaac tgagttcctg gagaactaca gtttagcatt cctcaggcta ctgtgaaaac
1080
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1260
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1320
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1380
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1440
ctatgtaaca atgggtattca acattctata tactgtgttt agtacactaa ttttgaagcc
1500
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1620
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1638

<210> 3498

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3498

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 20 25 30
 Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35 40 45
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50 55 60
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65 70 75 80
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85 90 95
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
 100 105 110
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
 115 120 125
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
 130 135 140
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
 145 150 155 160
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
 165 170 175
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
 180 185 190
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
 195 200 205
 Glu Ser
 210

<210> 3499

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3499

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 360
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 420
 gtcctcagt cccctccac tctgctgtt cccctggac atggggcaca cgactcagga
 480
 ccaggccaga ggcaaaggca aggagcaggc agtacgccag caagagtccc tgtccacggg
 540

agcccatctt cctgccgggc cctccgtccc gccggccgct cctcccgcgc cgcccttaga
 600
 gcatctcccg ccggccaagc ctctcccg ccanggtccg gggcgatgca cagactcggg
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 720
 gggggcggtg cg
 732

<210> 3500
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 3500
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 20 25 30
 Ala Ser Thr Gly Lys Gln Gly Ala Pro Gly Pro Asp Trp Ala Cys Ile
 35 40 45
 Phe His Val Val Leu Gln Pro Ser Arg His Gly Pro Glu Ala Thr Ala
 50 55 60
 Ala Pro Gln Ser Pro Pro Thr Pro Ala Val Pro Pro Gly His Gly Ala
 65 70 75 80
 His Asp Ser Gly Pro Gly Gln Arg Gln Arg Gln Gly Ala Gly Ser Thr
 85 90 95
 Pro Ala Arg Val Pro Val His Gly Ser Pro Ser Ser Cys Arg Ala Leu
 100 105 110
 Arg Pro Ala Gly Arg Ser Ser Arg Ala Ala Pro Arg Ala Ser Pro Ala
 115 120 125
 Gly Gln Ala Ser Ser Arg Pro Xaa Ser Gly Ala Met His Arg Leu Gly
 130 135 140
 Glu Gly Asn Arg Ala Gly Glu Lys Val Phe Arg Arg Thr Ala Val Gln
 145 150 155 160
 Lys Arg Arg Val Gly Gly Gly Thr
 165

<210> 3501
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 3501
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 120
 ccccttatag agaagatgga tgcattccttg tccatgcttg ctaattgcca gaagctttca
 180
 ctgtctacaà actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
 240
 ttatcttttag gaagaaacaa cataaagaac ttaaattggac tggaggcagt agggggacaca
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg
 360
 aagaaattga agattctcta catgtctaata aacctggtaa aagactgggc tgagtttggtg
 420
 aagctggcag aactgccatg cctcgaagac ctgggtgtttg taggcaatcc cttggaagag
 480
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 <213> Homo sapiens

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 Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met
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 <212> DNA
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<400> 3503

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<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

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Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
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Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro					
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Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg					
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Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln					
225		230		235	240
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala					
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<210> 3505

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 3505

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<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

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		20						25					30		
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
		35					40					45			
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
	50					55					60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
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His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
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	115						120					125			
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 210 215 220
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
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 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Lys Arg Asn Pro Ala
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 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
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 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
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 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
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 435 440 445
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
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 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
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<211> 885

<212> DNA

<213> Homo sapiens

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<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

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Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
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Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
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65					70				75					80	
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			85				90						95		
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
		100					105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
		115				120					125				
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	130				135					140					
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145				150					155					160	
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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<400> 3510
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 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
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 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
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<211> 462

<212> PRT

<213> Homo sapiens

<400> 3512

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Ser Gln Thr Cys Asp Trp Gly Asn Leu Leu Gln Asp Ile Ile Leu Gln
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Val Phe Lys Tyr Leu Pro Leu Leu Asp Arg Ala His Ala Ser Gln Val
      85           90           95
Cys Arg Asn Trp Asn Gln Val Phe His Met Pro Asp Leu Trp Arg Cys
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Ala Cys Asp Ile Leu Ser Gln Leu Val Asn Cys Ser Leu Lys Thr Leu
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Gly Leu Ile Ser Thr Ala Arg Pro Ser Phe Met Asp Leu Pro Lys Ser
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His Phe Ile Ser Ala Leu Thr Val Val Phe Val Asn Ser Lys Ser Leu
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Ser Ser Leu Lys Ile Asp Asp Thr Pro Val Asp Asp Pro Ser Leu Lys
      210          215          220
Val Leu Val Ala Asn Asn Ser Asp Thr Leu Lys Leu Leu Lys Met Ser
      225          230          235          240
Ser Cys Pro His Val Ser Pro Ala Gly Ile Leu Cys Val Ala Asp Gln
      245          250          255
Cys His Gly Leu Arg Glu Leu Ala Leu Asn Tyr His Leu Leu Ser Asp
      260          265          270
Glu Leu Leu Leu Ala Leu Ser Ser Glu Lys His Val Arg Leu Glu His
      275          280          285
Leu Arg Ile Asp Val Val Ser Glu Asn Pro Gly Gln Thr His Phe His
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Thr Ile Gln Lys Ser Ser Trp Asp Ala Phe Ile Arg His Ser Pro Lys
      305          310          315          320
Val Asn Leu Val Met Tyr Phe Phe Leu Tyr Glu Glu Glu Phe Asp Pro
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Phe Phe Arg Tyr Glu Ile Pro Ala Thr His Leu Tyr Phe Gly Arg Ser
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Val Ser Lys Asp Val Leu Gly Arg Val Gly Met Thr Cys Pro Arg Leu

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Cys Gly Gly Arg Leu Ser Gln Leu Ser Ile Met Glu Glu Val Leu Ile		
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<212> PRT

<213> Homo sapiens

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Gly	Arg	Ala	Phe	Asn	Gln	His	Gly	His	Leu	Ile	Gln	His	Gln	Lys	Val
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<212> PRT

<213> Homo sapiens

<400> 3516

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<212> DNA

<213> Homo sapiens

<400> 3517

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<210> 3518
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 3518
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 Ile Val Ala Ser Phe Val Leu Ala Gly Glu Thr Glu Ala Thr Ala Leu
 35 40 45
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala
 50 55 60
 Ser Leu Ser Pro Ser Gly Leu Gly Ala Cys Asp Thr Ala Leu Arg Pro
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 Thr Arg Ser Trp Gly Ala Cys Trp Gln Trp Leu Gly His Ser Cys Ser
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 Gly Gln Gly

<210> 3519
 <211> 2207
 <212> DNA
 <213> Homo sapiens

<400> 3519
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2100
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<210> 3520

<211> 303

<212> PRT

<213> Homo sapiens

<400> 3520
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 Val Val Asn Leu Pro Pro Ala Gln Leu Ser Ser Ser Asp Glu Glu Thr
 35 40 45
 Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Pro Glu Glu Phe
 50 55 60
 Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser
 65 70 75 80
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
 85 90 95
 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp
 100 105 110
 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser
 115 120 125
 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr
 130 135 140
 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys
 145 150 155 160
 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly
 165 170 175
 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
 180 185 190
 Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala
 195 200 205
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu
 210 215 220
 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp
 225 230 235 240
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn
 245 250 255
 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser
 260 265 270
 Leu Leu Asp Pro Ala Lys Lys Ser Pro Ile Ala Ala Ala Arg Ser Pro
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 Leu Ser Ser Leu Gly Leu Gly Gly Trp Tyr Val Asp Ala Thr Ser
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<210> 3521

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3521

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 480
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 540
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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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			20					25								
Gln	His	Ala	Asp	Gln	Gly	Pro	Pro	Gly	Pro	His	Leu	Asp	Leu	His	Gln	45
			35				40									
Asp	Leu	Gln	Ala	Glu	Pro	Leu	Arg	Pro	Ala	Gly	Leu	Gly	Gly	Gly	Leu	60
			50			55					60					
Leu	Arg	Cys	Gly	Leu	Pro	Ser	Glu	Gln	Arg	Ala	Ala	Gly	Glu	Ala	Arg	80
						70			75							
Gly	Leu	His	Leu	Leu	Gln	Asp	Pro	Thr	Pro	Gly	Arg	Leu	Cys	Gln	Ala	95
				85					90							
Pro	Ala	Gly	Pro	Pro	Gly	Gly	Gly	His	Gly	Pro	Ala	Gly	Arg	Gly	Gln	110
			100					105								
Pro	Ser	Arg	His	Arg	Pro	Gly	Glu	Pro	Gln	Gly	Gly	Arg	Gly	Gly	Xaa	125
			115				120									
Pro	Asp	Pro	Ser	Thr	Pro	Ser	Val	Arg	Gly	Ser	Gln	Arg	Thr	Ala	Ser	140
			130			135										
Pro	Gly	Arg	Ala	Ser	Pro	Gly	Gly	Cys	Pro	Glu	Ala	Thr	Gly	Trp	Cys	160
					150				155							
Cys	Arg	His	Thr	Arg	Ser	Ala	Pro	Thr	Pro	Leu	Leu	Pro	Pro	Cys	Pro	175
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Ser	Pro	Ala	Ser	Ser												
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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120
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180
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240
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300
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360
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 2340
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 2460
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<210> 3524

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3524

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Pro	Arg	Tyr	Phe	Thr	Trp	Asp	Glu	Val	Ala	Gln	Arg	Ser	Gly	Cys	Glu
			20				25						30		
Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Asp	Phe
			35				40						45		
Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
			50				55					60			
Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
						70					75			80	
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
						85				90				95	
Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
						100				105				110	
Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn

115 120 125
 His Val Phe Phe Leu Leu Tyr Leu Leu His Ile Leu Leu Leu Asp Gly
 130 135 140
 Ala Ala Trp Leu Thr Leu Trp Val Phe Gly Thr Ser Phe Leu Pro Phe
 145 150 155 160
 Leu Leu Cys Ala Val Leu Leu Ser Ala Val Gln Ala Gln Ala Gly Trp
 165 170 175
 Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
 180 185 190
 Asn His Leu Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro
 195 200 205
 Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
 210 215 220
 Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
 225 230 235 240
 Leu Gly Lys Ile Leu Ser Val Glu Leu Gly Lys Gln Lys Lys Lys Tyr
 245 250 255
 Met Pro Tyr Asn His Gln His Lys Tyr Phe Phe Leu Ile Gly Pro Pro
 260 265 270
 Ala Leu Leu Pro Leu Tyr Phe Gln Trp Tyr Ile Phe Tyr Phe Val Ile
 275 280 285
 Gln Arg Lys Lys Trp Val Asp Leu Val Trp Met Ile Thr Phe Tyr Val
 290 295 300
 Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
 305 310 315 320
 Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
 325 330 335
 Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
 340 345 350
 Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
 355 360 365
 Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
 370 375 380
 His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
 385 390 395 400
 Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
 405 410 415
 Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
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 Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
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<210> 3525

<211> 1116

<212> DNA

<213> Homo sapiens

<400> 3525

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 120
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 360
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 420
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 480
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 780
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<210> 3526

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3526

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			20				25					30			
Arg	Lys	Gly	Ile	Cys	Glu	Tyr	His	Leu	Lys	Asn	Tyr	Ala	Ala	Ala	Leu
		35				40					45				
Glu	Thr	Phe	Ile	Gly	Gly	Gln	Lys	Leu	Xaa	Ala	Asp	Ala	Asn	Phe	Ser
	50				55					60					
Asp	Trp	Ile	Lys	Arg	Cys	Gln	Glu	Ala	Gln	Asn	Gly	Ser	Glu	Ser	Glu
65				70					75				80		
Val	Val	Met	Glu	Pro	Ala	Leu	Glu	Gly	Thr	Gly	Lys	Glu	Gly	Lys	Lys
			85				90					95			
Ala	Ser	Ser	Arg	Lys	Arg	Thr	Leu	Ala	Glu	Pro	Pro	Ala	Lys	Gly	Leu
			100				105					110			
Leu	Gln	Pro	Val	Lys	Leu	Ser	Arg	Ala	Glu	Leu	Tyr	Lys	Glu	Pro	Thr

115	120	125
Asn Glu Glu Leu Asn Arg Leu Arg Glu Thr Glu Ile Leu Phe His Ser		
130	135	140
Ser Leu Leu Arg Leu Gln Val Glu Glu Leu Leu Lys Glu Val Arg Leu		
145	150	155
Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu Val Asn		
165	170	175
Gln Arg Val Val Arg Val Pro Ser Val Pro Glu Thr Glu Leu Thr Asp		
180	185	190
Gln Ala Trp Leu Pro Ala Gly Val Arg Val Pro Leu His Gln Val Pro		
195	200	205
Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr		
210	215	220
Val Val Gly Ser Tyr Leu Leu Gly Thr Cys Ile Arg Pro Asp Ile Asn		
225	230	235
Val Asp Val Ala Leu Thr Met Pro Arg Glu Ile Leu Gln Asp Lys Asp		
245	250	255
Gly Leu Asn Gln Arg Tyr Phe Arg Lys Arg Ala Leu Tyr Leu Ala His		
260	265	270
Leu Ala His His Leu Ala Gln Asp Pro Leu Phe Gly Ser Val Cys Phe		
275	280	285
Ser Tyr Thr Asn Gly Cys His Leu Lys Pro Ser Leu Leu Leu Arg Pro		
290	295	300

<210> 3527

<211> 2838

<212> DNA

<213> Homo sapiens

<400> 3527

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120
ccgtctgtgc cagaggaacc attgtccctg ggtcccagggt ctgcttgagg agggactggg
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720

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<212> PRT

<213> Homo sapiens

<400> 3528

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<400> 3529

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Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
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<212> PRT

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<210> 3538

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3538

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Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
35           40           45
Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg
50           55           60
Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
65           70           75           80
His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
85           90           95
Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

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100 105 110
 Leu Pro Ser Pro Pro Thr Gln Gly His Pro Thr Ala Pro Pro Cys Pro
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 Met Gln Trp Glu Ser Gln Ala Val Gln Trp
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<210> 3539
 <211> 818
 <212> DNA
 <213> Homo sapiens

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 818

<210> 3540
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 3540
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 20 25 30
 Thr Leu Gly Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala

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      35          40          45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
  50          55          60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
  65          70          75          80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85          90          95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100          105          110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115          120          125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130          135          140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
      145          150          155          160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165          170          175
Leu Lys Tyr Ser
      180

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<210> 3541
 <211> 722
 <212> DNA
 <213> Homo sapiens

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<400> 3541
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<210> 3542

<211> 153
 <212> PRT
 <213> Homo sapiens

<400> 3542
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 35 40 45
 Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Ser Ser Ile
 50 55 60
 His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
 65 70 75 80
 Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
 85 90 95
 Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
 100 105 110
 Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
 115 120 125
 Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
 130 135 140
 Ala Tyr Val Ser Ala Leu Gln Pro Gly
 145 150

<210> 3543
 <211> 1206
 <212> DNA
 <213> Homo sapiens

<400> 3543
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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile
		35					40					45			
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu
	50					55					60				
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
65					70				75					80	
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn
			85					90					95		
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			100					105					110		
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly
		115					120					125			
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu
	130					135					140				
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe
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Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu
			165					170					175		
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val
		180						185					190		
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro
		195					200					205			
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu

210		215		220											
Gly	Asp	Leu	Met	Lys	Ile	Ser	Glu	Thr	Phe	Ala	Leu	Arg	Ile	Pro	Ser
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Phe	Val	Val	Met	Cys	Pro	Glu	Asn	Ser	Ser	Leu	Arg	Val	Phe	Asn	Ser
				245					250					255	
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<210> 3545

<211> 3657

<212> DNA

<213> Homo sapiens

<400> 3545

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<210> 3546

<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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 Leu Ala Asp Pro Gly Trp Ala Ser Ile Ser Arg Gly Val Leu Val Cys
 35 40 45
 Asp Glu Cys Cys Ser Val His Arg Ser Leu Gly Arg His Ile Ser Ile
 50 55 60
 Val Lys His Leu Arg His Ser Ala Trp Pro Pro Thr Leu Leu Gln Met
 65 70 75 80
 Val His Thr Leu Ala Ser Asn Gly Ala Asn Ser Ile Trp Glu His Ser
 85 90 95
 Leu Leu Asp Pro Ala Gln Val Gln Ser Gly Arg Arg Lys Ala Asn Pro
 100 105 110
 Gln Asp Lys Val His Pro Ile Lys Ser Glu Phe Ile Arg Ala Lys Tyr
 115 120 125
 Gln Met Leu Ala Phe Val His Lys Leu Pro Cys Arg Asp Asp Gly

130	135	140
Val Thr Ala Lys Asp Leu Ser Lys Gln Leu His Ser Ser Val Arg Thr		
145	150	155
Gly Asn Leu Glu Thr Cys Leu Arg Leu Leu Ser Leu Gly Ala Gln Ala		160
	165	170
Asn Phe Phe His Pro Glu Lys Gly Thr Thr Pro Leu His Val Ala Ala		175
	180	185
Lys Ala Gly Gln Thr Leu Gln Ala Glu Leu Leu Val Val Tyr Gly Ala		190
	195	200
Asp Pro Gly Ser Pro Asp Val Asn Gly Arg Thr Pro Ile Asp Tyr Ala		205
	210	215
Arg Gln Ala Gly His His Glu Leu Ala Glu Arg Leu Val Glu Cys Gln		220
225	230	235
Tyr Glu Leu Thr Asp Arg Leu Ala Phe Tyr Leu Cys Gly Arg Lys Pro		240
	245	250
Asp His Lys Asn Gly His Tyr Ile Ile Pro Gln Met Ala Asp Arg Ser		255
	260	265
Arg Gln Lys Cys Met Ser Gln Ser Leu Asp Leu Ser Glu Leu Ala Lys		270
	275	280
Ala Ala Lys Lys Lys Leu Gln Ala Leu Ser Asn Arg Leu Phe Glu Glu		285
290	295	300
Leu Ala Met Asp Val Tyr Asp Glu Val Asp Arg Arg Glu Asn Asp Ala		305
305	310	315
Val Trp Leu Ala Thr Gln Asn His Ser Thr Leu Val Thr Glu Arg Ser		320
	325	330
Ala Val Pro Phe Leu Pro Val Asn Pro Glu Tyr Ser Ala Thr Arg Asn		335
	340	345
Gln Gly Arg Gln Lys Leu Ala Arg Phe Asn Ala Arg Glu Phe Ala Thr		350
	355	360
Leu Ile Ile Asp Ile Leu Ser Glu Ala Lys Arg Arg Gln Gln Gly Lys		365
370	375	380
Ser Leu Ser Ser Pro Thr Asp Asn Leu Glu Leu Ser Leu Arg Ser Gln		385
385	390	395
Ser Asp Leu Asp Asp Gln His Asp Tyr Asp Ser Val Ala Ser Asp Glu		400
	405	410
Asp Thr Asp Gln Glu Pro Leu Arg Ser Thr Gly Ala Thr Arg Ser Asn		415
	420	425
Arg Ala Arg Ser Met Asp Ser Ser Asp Leu Ser Asp Gly Ala Val Thr		430
	435	440
Leu Gln Glu Tyr Leu Glu Leu Lys Lys Ala Leu Ala Thr Ser Glu Ala		445
	450	455
Lys Val Gln Gln Leu Met Lys Val Asn Ser Ser Leu Ser Asp Glu Leu		460
465	470	475
Arg Arg Leu Gln Arg Glu His Phe Ala Pro Ile Ile His Lys Leu Gln		480
	485	490
Ala Glu Asn Leu Gln Leu Arg Gln Pro Pro Gly Pro Val Pro Thr Pro		495
	500	505
Pro Leu Pro Ser Glu Arg Ala Glu His Thr Pro Met Ala Pro Gly Gly		510
	515	520
Ser Thr His Arg Arg Asp Arg Gln Ala Phe Ser Met Tyr Glu Pro Gly		525
	530	535
Ser Ala Leu Lys Pro Phe Gly Gly Pro Pro Gly Asp Glu Leu Thr Thr		540
545	550	555
Arg Leu Gln Pro Phe His Ser Thr Glu Leu Glu Asp Asp Ala Ile Tyr		560

565 570 575
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 580 585 590
 Ala Ser Ala Val Pro Phe Thr Pro Ser Ser Pro Leu Leu Ser Cys Ser
 595 600 605
 Gln Glu Gly Ser Arg His Thr Ser Lys Leu Ser Arg His Gly Ser Gly
 610 615 620
 Ala Asp Ser Asp Tyr Glu Asn Thr Gln Ser Gly Asp Pro Leu Leu Gly
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 Pro Glu Leu Glu Ser Leu Asp Gly Asp Leu Asp Pro Gly Leu Pro Ser
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 675 680 685
 Glu Leu Leu Arg Ala Ala Gln Glu Phe Lys His Asp Ser Phe Val Pro
 690 695 700
 Cys Ser Glu Lys Ile His Leu Ala Val Thr Glu Met Ala Ser Leu Phe
 705 710 715 720
 Pro Lys Arg Pro Ala Leu Glu Pro Val Arg Ser Ser Leu Arg Leu Leu
 725 730 735
 Asn Ala Ser Ala Tyr Arg Leu Gln Ser Glu Cys Arg Lys Thr Val Pro
 740 745 750
 Pro Glu Pro Gly Ala Pro Val Asp Phe Gln Leu Leu Thr Gln Gln Val
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<211> 1039

<212> DNA

<213> Homo sapiens

<400> 3547

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<210> 3548

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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			20					25					30		
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Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
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Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
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			180					185					190		
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Val	Glu	Leu	Phe	Lys	Glu	Val	Val	Val	His	Leu	Leu	Lys	Leu	Tyr	Lys
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<210> 3549
<211> 2542
<212> DNA
<213> Homo sapiens
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960

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2160
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<210> 3550
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 <212> PRT
 <213> Homo sapiens

<400> 3550

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 35          40          45
Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
 50          55          60
Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
 65          70          75          80
Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
 85          90          95
Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
100          105          110
Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
115          120          125
Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
130          135          140
Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
145          150          155          160
Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
165          170          175
Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
180          185          190
Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
195          200          205
Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
210          215          220
Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
225          230          235          240
Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
245          250          255
Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
260          265          270
Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
275          280          285
Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
290          295          300
Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
305          310          315          320
Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
325          330          335
Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
340          345          350
Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
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Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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370 375 380
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 Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
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 420 425 430
 Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
 435 440 445
 Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
 450 455 460
 Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
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<210> 3551
 <211> 545
 <212> DNA
 <213> Homo sapiens

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 180
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 360
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<210> 3552
 <211> 55
 <212> PRT
 <213> Homo sapiens

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 Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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<210> 3553

<211> 1412

<212> DNA

<213> Homo sapiens

<400> 3553

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 180
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 480
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<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
		35					40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
		50				55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85					90						95	
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
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Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
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Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
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Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185					190		
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
		195					200						205		
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			245					250						255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
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Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
		275					280					285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
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Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
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<211> 1038
<212> DNA
<213> Homo sapiens
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<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

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Arg	Gly	Asp	Arg	Asn	Thr	Gly	Lys	Thr	Ala	Leu	Trp	His	Arg	Leu	Gln	50	55	60	
Gly	Arg	Pro	Phe	Val	Glu	Glu	Tyr	Ile	Pro	Thr	Gln	Glu	Ile	Gln	Val	65	70	75	80
Thr	Ser	Ile	His	Trp	Ser	Tyr	Lys	Thr	Thr	Asp	Asp	Ile	Val	Lys	Val	85	90	95	
Glu	Val	Trp	Asp	Val	Val	Asp	Lys	Gly	Lys	Cys	Lys	Lys	Arg	Gly	Asp	100	105	110	
Gly	Leu	Lys	Met	Glu	Asn	Asp	Pro	Gln	Glu	Ala	Glu	Ser	Glu	Met	Ala	115	120	125	
Leu	Asp	Ala	Glu	Phe	Leu	Asp	Val	Tyr	Lys	Asn	Cys	Asn	Gly	Val	Val	130	135	140	
Met	Met	Phe	Asp	Ile	Thr	Lys	Gln	Trp	Thr	Phe	Asn	Tyr	Ile	Leu	Arg	145	150	155	160
Glu	Leu	Pro	Lys	Val	Pro	Thr	His	Val	Pro	Val	Cys	Val	Leu	Gly	Asn	165	170	175	
Tyr	Arg	Asp	Met	Gly	Glu	His	Arg	Val	Ile	Xaa	Cys	Arg	Thr	Xaa	Val	180	185	190	
Arg	Asp	Phe	Ile	Asp	Asn	Leu	Asp	Arg	Pro	Pro	Gly	Ser	Ser	Tyr	Phe	195	200	205	
Arg	Tyr	Ala	Glu	Ser	Ser	Met	Lys	Asn	Ser	Phe	Gly	Leu	Lys	Tyr	Leu	210	215	220	
His	Lys	Phe	Phe	Asn	Ile	Pro	Phe	Leu	Gln	Leu	Gln	Arg	Glu	Thr	Leu	225	230	235	240
Leu	Arg	Gln	Leu	Glu	Thr	Asn	Gln	Leu	Asp	Met	Asp	Ala	Thr	Leu	Glu	245	250	255	
Glu	Leu	Ser	Val	Gln	Gln	Glu	Thr	Glu	Asp	Gln	Asn	Tyr	Gly	Ile	Phe	260	265	270	
Leu	Glu	Met	Met	Glu	Ala	Arg	Ser	Arg	Gly	His	Ala	Ser	Pro	Leu	Ala	275	280	285	
Ala	Asn	Gly	Gln	Ser	Pro	Ser	Pro	Gly	Ser	Gln	Ser	Pro	Val	Val	Pro	290	295	300	
Ala	Gly	Ala	Val	Ser	Thr	Gly	Ser	Ser	Ser	Pro	Gly	Thr	Ala	Gln	Pro	305	310	315	320
Ala	Pro	Gln	Leu	Pro	Leu	Asn	Gly	Cys	Pro	Thr	Ile	Leu				325	330		

<210> 3557

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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120
agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgcagat cgccatcgac
180
ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag
240
atcatcagcg gcagcagcgg cagcctgctg tcttcaggat ctggtgccag gagacactgc
300
attctactcc caggttctca ggaatcagat agctgcagat cggccaagaa ggacatgctg
360
gctgccttga agtccaggca ggaagctctg gaggaacccc tgcgtcagag gctggaggaa
420
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480
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486

<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His	Thr
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Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala	Ile
			20					25					30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys	Ile
		35					40					45			
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu	Thr
		50				55					60				
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly	Lys
65				70					75					80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly	Ala
			85					90					95		
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser
			100					105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu
		115				120						125			
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu
	130				135					140					
Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro
145				150					155					160	
Leu	Asp														

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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 120
 gccggcgaag caggggctat cgagcgggtc ctgagggatt acagcgacaa gcatagggct
 180
 actttcaaat ttgaatcaac agatgaagat aaaagaaaga aactctgtga aggcataatt
 240
 aaagtcctta taaaggacat cccaacaaca tgtcaagtgt cctgcctgga agtactccgc
 300
 attctctcca gagacaaaaa ggttttagtt cctgtgacaa ctaaggaaaa tatgcagata
 360
 ctgctgcgac tagccaagct aaatgagtta gatgattctt tggagaaagt atcagagttc
 420
 ccagttattg tggagtcatt aaaatgtctg tgtaatatag tgttcaacag tcagatggca
 480
 cagcagctca gcctggaact taatcttgct gcaaagctct gtaacctct gagaaagtgc
 540
 aaggaccgga aatttatcaa tgacattaag tgctttgact tgcgcttgct cttccttctg
 600
 tcacttttgc acaccgacat caggtcacaa ttgcgctatg agtccaggg actaccgctg
 660
 ctaacgcaga tcg
 673

<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

Met	Asp	Glu	Glu	Arg	Ala	Leu	Tyr	Ile	Val	Arg	Ala	Gly	Glu	Ala	Gly
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Ala	Ile	Glu	Arg	Val	Leu	Arg	Asp	Tyr	Ser	Asp	Lys	His	Arg	Ala	Thr
			20					25				30			
Phe	Lys	Phe	Glu	Ser	Thr	Asp	Glu	Asp	Lys	Arg	Lys	Lys	Leu	Cys	Glu
		35					40				45				
Gly	Ile	Phe	Lys	Val	Leu	Ile	Lys	Asp	Ile	Pro	Thr	Thr	Cys	Gln	Val
	50				55					60					
Ser	Cys	Leu	Glu	Val	Leu	Arg	Ile	Leu	Ser	Arg	Asp	Lys	Lys	Val	Leu
65				70					75					80	
Val	Pro	Val	Thr	Thr	Lys	Glu	Asn	Met	Gln	Ile	Leu	Leu	Arg	Leu	Ala
			85					90					95		
Lys	Leu	Asn	Glu	Leu	Asp	Asp	Ser	Leu	Glu	Lys	Val	Ser	Glu	Phe	Pro
		100					105					110			
Val	Ile	Val	Glu	Ser	Leu	Lys	Cys	Leu	Cys	Asn	Ile	Val	Phe	Asn	Ser
	115				120					125					
Gln	Met	Ala	Gln	Gln	Leu	Ser	Leu	Glu	Leu	Asn	Leu	Ala	Ala	Lys	Leu
	130				135					140					
Cys	Asn	Leu	Leu	Arg	Lys	Cys	Lys	Asp	Arg	Lys	Phe	Ile	Asn	Asp	Ile

145 150 155 160
 Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
 165 170 175
 Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu
 180 185 190
 Thr Gln Ile
 195

<210> 3561
 <211> 523
 <212> DNA
 <213> Homo sapiens

<400> 3561
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 120
 ggagggcatg agacgcctat tgcagagctg ctcaccagaa ggacacagga atttagaaga
 180
 gaagctccta cctgcccccg atcatgcacg tggccactga ggatgccaga cgaggtgatg
 240
 ctggtctcat agagaatgta cccgaaggac tgtccatttc cccattgac tggcagggtc
 300
 tccatgttga tgggcttttc agacttgatt ggctgcgtac agaagagatg gaggggtggg
 360
 caggctcagg aggagtgggg tcacagacag actctgcttg ggggctggca catgggggtg
 420
 aagcggaggt ttggtgggtg ttttctactt tgactttctca ttgcactaaa catacaactc
 480
 tccagggtga cggggaagag gagggggca aagggggtgtg cac
 523

<210> 3562
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 3562
 Met His Val Ala Thr Glu Asp Ala Arg Arg Gly Asp Ala Gly Leu Ile
 1 5 10 15
 Glu Asn Val Pro Glu Gly Leu Ser Ile Ser Pro Ile Asp Trp Gln Val
 20 25 30
 Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu
 35 40 45
 Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
 50 55 60
 Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
 65 70 75 80
 Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp
 85 90 95
 Gly Glu Glu Glu Trp Gly Lys Gly Val Cys
 100 105

<210> 3563
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 3563
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 60
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 120
 cccctgccgc cgtcgacggg gccccagtg ggcgcgggccc tggacgcgga gcagcgcacg
 180
 gtgttcgcct tcgtgctctg cctgctcgtg gtgctggtgc tgttgatggt gcgctgcgtg
 240
 cgcctcctgc tcgaccccta cagccgcatg cccgcctcgt cctggaccga ccacaaggag
 300
 gcgctcgagc gcgggcagtt cgactacgcg ttggtgtgag ggcgcggcg cccctagg
 359

<210> 3564
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3564
 Met Ser Ala Thr Trp Thr Leu Ser Pro Glu Pro Leu Pro Pro Ser Thr
 1 5 10 15
 Gly Pro Pro Val Gly Ala Gly Leu Asp Ala Glu Gln Arg Thr Val Phe
 20 25 30
 Ala Phe Val Leu Cys Leu Leu Val Val Leu Val Leu Leu Met Val Arg
 35 40 45
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser
 50 55 60
 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala
 65 70 75 80
 Leu Val

<210> 3565
 <211> 580
 <212> DNA
 <213> Homo sapiens

<400> 3565
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 60
 cgtgagcagg cacaggagac ctcccgcgcc gccggccggg cgaccccgca ggaagtagga
 120
 aggacgagcg cgcacttcaa gtcccagaag ccccgcttcc ctggagcccg cgccgtgccg
 180
 cgctacgccc gccgggagcc gggcagagcg gccaaagtgt cgcagcccaa gaaaagaaag
 240
 cttgagtcgg ggggcggcgc cgaaggaggg gagggaaactg aagaggaaga tggcgcggag
 300

cgggagggcgg ccctggagcg accccggacg actaagcggg aacgggacca gctgtactac
 360
 gagtgctact cggacgtttc ggtccacgag gagatgatcg cggaccgcgt ccgcaccgat
 420
 gcctaccgct ggggtttccct tcggaactgg gcagcactgc gaggcaagac ggtactggac
 480
 gtgggcgcgg gcaccggcat tctgagcatc ttctgtgccc aggccggggc ccggcgcgtg
 540
 tacgcggtag aggccagcgc catctggcaa caggcccggg
 580

<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

Thr	Arg	Arg	Gly	Trp	Glu	Lys	Gly	Cys	Gln	Asp	Thr	Arg	Arg	Ala	Ile
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Gln	Asn	Ser	Ser	Arg	Glu	Gln	Ala	Gln	Glu	Thr	Phe	Arg	Ala	Ala	Gly
		20					25						30		
Arg	Ala	Thr	Pro	Gln	Glu	Val	Gly	Arg	Thr	Ser	Ala	His	Phe	Lys	Ser
		35					40					45			
Gln	Lys	Pro	Pro	Phe	Pro	Gly	Ala	Arg	Ala	Val	Pro	Arg	Tyr	Ala	Arg
	50					55				60					
Arg	Glu	Pro	Gly	Arg	Ala	Ala	Lys	Met	Ser	Gln	Pro	Lys	Lys	Arg	Lys
65				70					75					80	
Leu	Glu	Ser	Gly	Gly	Gly	Ala	Glu	Gly	Gly	Glu	Gly	Thr	Glu	Glu	Glu
			85					90					95		
Asp	Gly	Ala	Glu	Arg	Glu	Ala	Ala	Leu	Glu	Arg	Pro	Arg	Thr	Thr	Lys
		100					105					110			
Arg	Glu	Arg	Asp	Gln	Leu	Tyr	Tyr	Glu	Cys	Tyr	Ser	Asp	Val	Ser	Val
		115				120						125			
His	Glu	Glu	Met	Ile	Ala	Asp	Arg	Val	Arg	Thr	Asp	Ala	Tyr	Arg	Trp
	130					135					140				
Val	Ser	Leu	Arg	Asn	Trp	Ala	Ala	Leu	Arg	Gly	Lys	Thr	Val	Leu	Asp
145				150						155				160	
Val	Gly	Ala	Gly	Thr	Gly	Ile	Leu	Ser	Ile	Phe	Cys	Ala	Gln	Ala	Gly
			165					170					175		
Ala	Arg	Arg	Val	Tyr	Ala	Val	Glu	Ala	Ser	Ala	Ile	Trp	Gln	Gln	Ala
			180					185					190		

Arg

<210> 3567

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 3567

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 ccttcagaa gagccagaag gaagctgaac tgaccctga actggagaaa cagaaggaaa
 120

ataagcaggt ggaagagatc ctccgtctgg agaaagaaat cgaggacctg cagcgcata
180
aggagcagca ggagctgtcg ctgaccgagg cttccctgca gaagctgcag gagcggcggg
240
accaggagct cgcaggctg gaggaggaga tttttgcacc tgaaaaaggc agccatagtt
300
ttccagaagc aactcagagg tcagattgct cggagagttt acagacaatt gctggcagag
360
aaaagggagc aagaagaaaa gaagaaacag gaagaggaag aaaagaagaa acgggaggaa
420
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480
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540
acccgtgaac tggagaaaca gaaggaaaat aagcaggtgg aagagatcct ccgtctggag
600
aaagaaatcg aggacctgca ggcgatgaag gagcagcagg agctgtcgct gaccgaggct
660
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720
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840
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900
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960
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1020
tacatgaacg acacgggtgtt gccaccagc cccagtgcgg acagcacggt gctgctcgcc
1080
ccatcagtgc aggactccgg gagcctacac aactcctcca gcggcgagtc cacctactgc
1140
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1200
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1380
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1740

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1920
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1980
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2040
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2100
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2160
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2280
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2580
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2640
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2700
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<210> 3568

<211> 869

<212> PRT

<213> Homo sapiens

<400> 3568

Pro	Arg	Leu	Pro	Cys	Arg	Ser	Cys	Arg	Ser	Gly	Gly	Thr	Arg	Ser	Ser
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Ala	Gly	Trp	Arg	Arg	Arg	Phe	Leu	His	Leu	Lys	Lys	Ala	Ala	Ile	Val
			20					25					30		
Phe	Gln	Lys	Gln	Leu	Arg	Gly	Gln	Ile	Ala	Arg	Arg	Val	Tyr	Arg	Gln
		35				40						45			
Leu	Leu	Ala	Glu	Lys	Arg	Glu	Gln	Glu	Glu	Lys	Lys	Lys	Gln	Glu	Glu
	50					55					60				
Glu	Glu	Lys	Lys	Lys	Arg	Glu	Glu	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Glu
65				70				75						80	
Arg	Arg	Glu	Ala	Glu	Leu	Arg	Ala	Gln	Gln	Glu	Glu	Glu	Thr	Arg	Lys

85 90 95
 Gln Gln Glu Leu Glu Ala Leu Gln Lys Ser Gln Lys Glu Ala Glu Leu
 100 105 110
 Thr Arg Glu Leu Glu Lys Gln Lys Glu Asn Lys Gln Val Glu Glu Ile
 115 120 125
 Leu Arg Leu Glu Lys Glu Ile Glu Asp Leu Gln Arg Met Lys Glu Gln
 130 135 140
 Gln Glu Leu Ser Leu Thr Glu Ala Ser Leu Gln Lys Leu Gln Glu Arg
 145 150 155 160
 Arg Asp Gln Glu Leu Arg Arg Leu Glu Glu Glu Ala Cys Arg Ala Ala
 165 170 175
 Gln Glu Phe Leu Glu Ser Leu Asn Phe Asp Glu Ile Asp Glu Cys Val
 180 185 190
 Arg Asn Ile Glu Arg Ser Leu Ser Gly Gly Ser Glu Phe Ser Ser Glu
 195 200 205
 Leu Ala Glu Ser Ala Cys Glu Glu Lys Pro Asn Phe Asn Phe Ser Gln
 210 215 220
 Pro Tyr Pro Glu Glu Glu Val Asp Glu Gly Phe Glu Ala Asp Asp Asp
 225 230 235 240
 Ala Phe Lys Asp Ser Pro Asn Pro Ser Glu His Gly His Ser Asp Gln
 245 250 255
 Arg Thr Ser Gly Ile Arg Thr Ser Asp Asp Ser Ser Glu Glu Asp Pro
 260 265 270
 Tyr Met Asn Asp Thr Val Val Pro Thr Ser Pro Ser Ala Asp Ser Thr
 275 280 285
 Val Leu Leu Ala Pro Ser Val Gln Asp Ser Gly Ser Leu His Asn Ser
 290 295 300
 Ser Ser Gly Glu Ser Thr Tyr Cys Met Pro Gln Asn Ala Gly Asp Leu
 305 310 315 320
 Pro Ser Pro Asp Gly Asp Tyr Asp Tyr Asp Gln Asp Asp Tyr Glu Asp
 325 330 335
 Gly Ala Ile Thr Ser Gly Ser Ser Val Thr Phe Ser Asn Ser Tyr Gly
 340 345 350
 Ser Gln Trp Ser Pro Asp Tyr Arg Cys Ser Val Gly Thr Tyr Asn Ser
 355 360 365
 Ser Gly Ala Tyr Arg Phe Ser Ser Glu Gly Ala Gln Ser Ser Phe Glu
 370 375 380
 Asp Ser Glu Glu Asp Phe Asp Ser Arg Phe Asp Thr Asp Asp Glu Leu
 385 390 395 400
 Ser Tyr Arg Arg Asp Ser Val Tyr Ser Cys Val Thr Leu Pro Tyr Phe
 405 410 415
 His Ser Phe Leu Tyr Met Lys Gly Gly Leu Met Asn Ser Trp Lys Arg
 420 425 430
 Arg Trp Cys Val Leu Lys Asp Glu Thr Phe Leu Trp Phe Arg Ser Lys
 435 440 445
 Gln Glu Ala Leu Lys Gln Gly Trp Leu His Lys Lys Gly Gly Gly Ser
 450 455 460
 Ser Thr Leu Ser Arg Arg Asn Trp Lys Lys Arg Trp Phe Val Leu Arg
 465 470 475 480
 Gln Ser Lys Leu Met Tyr Phe Glu Asn Asp Ser Glu Glu Lys Leu Lys
 485 490 495
 Gly Thr Val Glu Val Arg Thr Ala Lys Glu Ile Ile Asp Asn Thr Thr
 500 505 510
 Lys Glu Asn Gly Ile Asp Ile Ile Met Ala Asp Arg Thr Phe His Leu

515 520 525
 Ile Ala Glu Ser Pro Glu Asp Ala Ser Gln Trp Phe Ser Val Leu Ser
 530 535 540
 Gln Val His Ala Ser Thr Asp Gln Glu Ile Gln Glu Met His Asp Glu
 545 550 555 560
 Gln Ala Asn Pro Gln Asn Ala Val Gly Thr Leu Asp Val Gly Leu Ile
 565 570 575
 Asp Ser Val Cys Ala Ser Asp Ser Pro Asp Arg Pro Asn Ser Phe Val
 580 585 590
 Ile Ile Thr Ala Asn Arg Val Leu His Cys Asn Ala Asp Thr Pro Glu
 595 600 605
 Glu Met His His Trp Ile Thr Leu Leu Gln Arg Ser Lys Gly Asp Thr
 610 615 620
 Arg Val Glu Gly Gln Glu Phe Ile Val Arg Gly Trp Leu His Lys Glu
 625 630 635 640
 Val Lys Asn Ser Pro Lys Met Ser Ser Leu Lys Leu Lys Lys Arg Trp
 645 650 655
 Phe Val Leu Thr His Asn Ser Leu Asp Tyr Tyr Lys Ser Ser Glu Lys
 660 665 670
 Asn Ala Leu Lys Leu Gly Thr Leu Val Leu Asn Ser Leu Cys Ser Val
 675 680 685
 Val Pro Pro Asp Glu Lys Ile Phe Lys Glu Thr Gly Tyr Trp Asn Val
 690 695 700
 Thr Val Tyr Gly Arg Lys His Cys Tyr Arg Leu Tyr Thr Lys Leu Leu
 705 710 715 720
 Asn Glu Ala Thr Arg Trp Ser Ser Val Ser Gln Asn Val Thr Asp Thr
 725 730 735
 Lys Ala Pro Ile Asp Thr Pro Thr Gln Gln Leu Ile Gln Asp Ile Lys
 740 745 750
 Glu Asn Cys Leu Asn Ser Asp Val Val Glu Gln Ile Tyr Lys Arg Asn
 755 760 765
 Pro Ile Leu Arg Tyr Thr His His Pro Leu His Ser Pro Leu Leu Pro
 770 775 780
 Leu Pro Tyr Gly Asp Ile Asn Leu Asn Leu Leu Lys Asp Lys Gly Tyr
 785 790 795 800
 Thr Thr Leu Gln Asp Glu Ala Ile Lys Ile Phe Asn Ser Leu Gln Gln
 805 810 815
 Leu Glu Ser Met Ser Asp Pro Ile Pro Ile Ile Gln Gly Ile Leu Gln
 820 825 830
 Thr Gly His Asp Leu Arg Pro Leu Arg Asp Glu Leu Tyr Cys Gln Leu
 835 840 845
 Ile Lys Gln Thr Asn Lys Val Pro His Pro Gly Ser Val Gly Asn Leu
 850 855 860
 Tyr Ser Trp Gln Ile
 865

<210> 3569

<211> 5070

<212> DNA

<213> Homo sapiens

<400> 3569

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60

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120
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<211> 893

<212> PRT

<213> Homo sapiens

<400> 3570

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Arg	Ala	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Gln	Gly	Pro	Leu	Ser	Pro	Gly
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Pro	Gly	Ser	Leu	Pro	Leu	Ser	Ile	Ala	Arg	Val	Gln	Thr	Pro	Pro	Trp
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His	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Gly	Leu	Leu	Gln	Asp	Ser	Asp	Ser
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Leu	Ser	Gly	Ser	Tyr	Leu	Asp	Pro	Asn	Tyr	Gln	Ser	Ile	Lys	Trp	Gln
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Pro	His	Gln	Gln	Asn	Lys	Trp	Ala	Thr	Leu	Tyr	Asp	Ala	Asn	Tyr	Lys
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Glu	Leu	Pro	Met	Leu	Thr	Tyr	Arg	Val	Asp	Ala	Asp	Lys	Gly	Phe	Asn
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Gly	Val	Lys	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Asn	Ile	Glu	Gln	Ser
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Glu	Thr	Thr	Ala	Asn	Asn	Met	Arg	Lys	Lys	Gly	Lys	Pro	Asn	Pro	Asp
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 Ile Glu Ala Thr Ala Pro Glu Thr Gly Val Ile Ala Gln Glu Val Lys
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 Phe Met Glu Asn Val Gly Ala Val Lys Glu Leu Cys Lys Leu Thr Asp
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 Pro Ala Glu Pro Thr Trp Ala Gln Gly Gln Ser Ala Ser Leu Leu Ala
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 Glu Pro Val Pro Ser Leu Thr Ser Ile Gln Val Leu Glu Asn Ser Met
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 Ser Ile Thr Ser Gln Tyr Cys Ala Pro Gly Asp Ala Cys Arg Pro Gly

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Asn Phe Thr Tyr His Ile Pro Val Ser Ser Gly Thr Pro Leu His Leu				
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Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu				
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Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro				
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Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp				
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Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val				
	850		855	860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro				
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<210> 3571

<211> 528

<212> DNA

<213> Homo sapiens

<400> 3571

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<210> 3572

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3572

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Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu				
	35	40	45	
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His				

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<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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<210> 3574

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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Thr Leu Thr Ala Thr Asn Pro Arg Ser His Ala His Ala Asp Ala Pro
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Arg Gly Gly Ser Pro Ala Val Phe Asp Trp Phe Phe Glu Ala Ala Cys
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145 150 155 160
Pro Phe Asp Val Glu Arg Gly Pro Pro Ser Pro Ala Val Gln His Phe
165 170 175
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Arg Leu Arg Ala Gly Thr Gln Ser Cys Leu Cys Ile Leu Ser His Leu
195 200 205
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Leu Ala Gln Asp Gln Val Thr Glu Ala Glu Glu Leu Leu Gln Asn Leu
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Gly Ser Gly Val Thr Val Ser Ser Gly Gln Gly Ile Pro Pro Pro Thr
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275 280 285
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305 310 315 320
Glu Arg Arg Val Leu Leu Thr Ala Ser Lys Leu Ser Thr Leu Arg Arg
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355

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<210> 3575

<211> 769

<212> DNA

<213> Homo sapiens

<400> 3575

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<210> 3576

<211> 205

<212> PRT

<213> Homo sapiens

<400> 3576

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 35 40 45
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe
 50 55 60
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe
 65 70 75 80
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His
 85 90 95
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

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His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ala	Ser	Thr		
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Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr		
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<211> 1225

<212> DNA

<213> Homo sapiens

<400> 3577

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 <212> PRT
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 Lys Asn Pro Glu Glu Ile Arg Gly Gly Gly Leu Leu Lys Tyr Ser Asn
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 Val Asn Glu Ser Thr Val Cys Leu Met Gly His Glu Arg Arg Gln Thr
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 Leu Asn Leu Ile Ser Leu Leu Ala Leu Arg Val Leu Gly Gly Thr Lys
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<212> PRT

<213> Homo sapiens

<400> 3580

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			20					25					30		
Glu	Thr	Lys	Gln	His	Glu	Lys	Trp	Leu	Ser	Gln	Pro	Thr	Cys	Ser	Asp
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	50					55					60				
Phe	Ser	Gln	Asp	Ile	Val	Leu	Ser	Trp	Asn	Leu	Ala	Gly	Gly	Trp	Ser
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Ile	Cys	Ile	Trp	Ser	Ile	Ala	Arg	Leu	Ser	His	Leu	Ser	Ser	Asp	Gln
			85					90					95		
Lys	Cys	Ile	Ser	Lys	Ile	Ile	Thr	Ser	Thr	Lys	Thr	Ile	Ile	Asp	Cys
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<210> 3581

<211> 2132

<212> DNA

<213> Homo sapiens

<400> 3581

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<210> 3582

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3582

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			20					25					30		
Ala	Ala	Pro	Gly	Val	Ala	Pro	Arg	Gly	Ala	Cys	Trp	Thr	Cys	Thr	Arg
			35				40					45			
Arg	Ala	Ser	Ser	Ala	Cys	Thr	Arg	Arg	Gly	Thr	Ala	Ala	Ala	Trp	Ser
			50				55				60				
Ser	Arg	Pro	Arg	Pro	Ser	Thr	Thr	Ala	Thr	Ser	Arg	Cys	Ser	Ser	Ala
						70				75				80	
Arg	Trp	Arg	Arg	Arg	Thr	Arg	Gly	Cys	Thr	Pro	Ala	Thr	Cys	Thr	Ile
					85				90					95	
Thr	Thr	Ala	Thr	Ser	Thr	Arg	Ala	Trp	Pro	Ser	Ala	Trp	Arg	Ser	Pro
			100					105					110		
Thr	Ala	Pro	Arg	Pro	Pro	Pro	Pro	Thr	Gly	Thr	Ala	Arg	Arg	Arg	Cys
			115				120						125		
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			130				135								

<210> 3583

<211> 1554

<212> DNA

<213> Homo sapiens

<400> 3583

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<210> 3584

<211> 356

<212> PRT

<213> Homo sapiens

<400> 3584

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 Ala Arg Glu Arg Lys Arg Lys Lys Arg Arg Ile Met Lys Ala Pro Ala
 65 70 75 80
 Ala Glu Ala Val Ala Glu Gly Ala Ser Gly Arg His Gly Gln Gly Arg
 85 90 95
 Ser Leu Glu Ala Glu Asp Lys Met Thr His Arg Ile Leu Arg Ala Ala
 100 105 110
 Gln Glu Gly Asp Leu Pro Glu Leu Arg Arg Leu Leu Glu Pro His Glu
 115 120 125
 Ala Gly Gly Ala Gly Gly Asn Ile Asn Ala Arg Asp Ala Phe Trp Trp
 130 135 140
 Thr Pro Leu Met Cys Ala Ala Arg Ala Gly Gln Gly Ala Ala Val Ser
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 Tyr Leu Leu Gly Arg Gly Ala Ala Trp Val Gly Val Cys Glu Leu Ser
 165 170 175
 Gly Arg Asp Ala Ala Gln Leu Ala Glu Glu Ala Gly Phe Pro Glu Val
 180 185 190
 Ala Arg Met Val Arg Glu Ser His Gly Glu Thr Arg Ser Pro Glu Asn
 195 200 205
 Arg Ser Pro Thr Pro Ser Leu Gln Tyr Cys Glu Asn Cys Asp Thr His
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 Phe Gln Asp Ser Asn His Arg Thr Ser Thr Ala His Leu Leu Ser Leu
 225 230 235 240
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 245 250 255
 Ser Pro Gly Phe Lys Leu Leu Leu Arg Gly Gly Trp Glu Pro Gly Met
 260 265 270
 Gly Leu Gly Pro Arg Gly Glu Gly Arg Ala Asn Pro Ile Pro Thr Val
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 Leu Lys Arg Asp Gln Glu Gly Leu Gly Tyr Arg Ser Ala Pro Gln Pro
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 Arg Val Thr His Phe Pro Ala Trp Asp Thr Arg Ala Val Ala Gly Arg
 305 310 315 320
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<210> 3585

<211> 2782

<212> DNA

<213> Homo sapiens

<400> 3585

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<212> PRT

<213> Homo sapiens

<400> 3586

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			20					25					30		
Arg	Ser	Cys	Trp	Arg	Lys	Trp	Lys	Gln	Leu	Ser	Arg	Leu	Gln	Arg	Asn
		35				40					45				
Met	Ile	Leu	Phe	Leu	Leu	Ala	Phe	Leu	Leu	Phe	Cys	Gly	Leu	Leu	Phe
	50					55				60					
Tyr	Ile	Asn	Leu	Ala	Asp	His	Trp	Lys	Ala	Leu	Ala	Phe	Arg	Leu	Glu
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Glu	Glu	Gln	Lys	Met	Arg	Pro	Glu	Ile	Ala	Gly	Leu	Lys	Pro	Ala	Asn

	85		90		95										
Pro	Pro	Val	Leu	Pro	Ala	Pro	Gln	Lys	Ala	Asp	Thr	Asp	Pro	Glu	Asn
	100						105						110		
Leu	Pro	Glu	Ile	Ser	Ser	Gln	Lys	Thr	Gln	Arg	His	Ile	Gln	Arg	Gly
	115						120						125		
Pro	Pro	His	Leu	Gln	Ile	Arg	Pro	Pro	Ser	Gln	Asp	Leu	Lys	Asp	Gly
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Thr	Gln	Glu	Glu	Ala	Thr	Lys	Arg	Gln	Glu	Ala	Pro	Val	Asp	Pro	Arg
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Ile	Glu	Pro	Glu	Gln	Gly	Thr	Glu	Leu	Pro	Ser	Arg	Arg	Ala	Glu	Val
						180					185				190
Pro	Thr	Lys	Pro	Pro	Leu	Pro	Pro	Ala	Arg	Thr	Gln	Gly	Thr	Pro	Val
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His	Leu	Asn	Tyr	Arg	Gln	Lys	Gly	Val	Ile	Asp	Val	Phe	Leu	His	Ala
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Trp	Lys	Gly	Tyr	Arg	Lys	Phe	Ala	Trp	Gly	His	Asp	Glu	Leu	Lys	Pro
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						245					250				255
Asp	Ala	Leu	Asp	Thr	Met	Trp	Ile	Leu	Gly	Leu	Arg	Lys	Glu	Phe	Glu
						260					265				270
Glu	Ala	Arg	Lys	Trp	Val	Ser	Lys	Lys	Leu	His	Phe	Glu	Lys	Asp	Val
						275					280				285
Asp	Val	Asn	Leu	Phe	Glu	Ser	Thr	Ile	Arg	Ile	Leu	Gly	Gly	Leu	Leu
						290					295				300
Ser	Ala	Tyr	His	Leu	Ser	Gly	Asp	Ser	Leu	Phe	Leu	Arg	Lys	Ala	Glu
305						310					315				320
Asp	Phe	Gly	Asn	Arg	Leu	Met	Pro	Ala	Phe	Arg	Thr	Pro	Ser	Lys	Ile
						325					330				335
Pro	Tyr	Ser	Asp	Val	Asn	Ile	Gly	Thr	Gly	Val	Ala	His	Pro	Pro	Arg
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Gly	Leu	Val	Pro	Met	Phe	Ile	Asn	Thr	His	Ser	Gly	Leu	Phe	Thr	His
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Leu	Gly	Val	Phe	Thr	Leu	Gly	Ala	Arg	Ala	Asp	Ser	Tyr	Tyr	Glu	Tyr
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Leu	Leu	Lys	Gln	Trp	Ile	Gln	Gly	Gly	Lys	Gln	Glu	Thr	Gln	Leu	Leu
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Glu	Asp	Tyr	Val	Glu	Ala	Ile	Glu	Gly	Val	Arg	Thr	His	Leu	Leu	Arg
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His	Ser	Glu	Pro	Ser	Lys	Leu	Thr	Phe	Val	Gly	Glu	Leu	Ala	His	Gly
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Leu	Ala	Leu	Gly	Val	Tyr	His	Gly	Leu	Pro	Ala	Ser	His	Met	Glu	Leu
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Ala	Gln	Glu	Leu	Met	Glu	Thr	Cys	Tyr	Gln	Met	Asn	Arg	Gln	Met	Glu

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 Gly Arg Arg Asp Val Glu Val Lys Pro Ala Asp Arg His Asn Leu Leu
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 Arg Pro Glu Thr Val Glu Ser Leu Phe Tyr Leu Tyr Arg Val Thr Gly
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 Asp Arg Lys Tyr Gln Asp Trp Gly Trp Glu Ile Leu Gln Ser Phe Ser
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 Arg Phe Thr Arg Val Pro Ser Gly Gly Tyr Ser Ser Ile Asn Asn Val
 595 600 605
 Gln Asp Pro Gln Lys Pro Glu Pro Arg Asp Lys Met Glu Ser Phe Phe
 610 615 620
 Leu Gly Glu Thr Leu Lys Tyr Leu Phe Leu Leu Phe Ser Asp Asp Pro
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<210> 3587

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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Glu	Glu	Glu	Gly	Gly	Ser	Tyr	Gly	Glu	Glu	Glu	Glu	Glu	Pro	Ala	Ile
			20					25					30		
Glu	Asp	Val	Gln	Glu	Glu	Thr	Gln	Leu	Asp	Leu	Ser	Gly	Asp	Ser	Val
		35					40					45			
Lys	Thr	Ile	Ala	Lys	Leu	Trp	Asp	Ser	Lys	Met	Phe	Ala	Glu	Ile	Met
		50				55					60				
Met	Lys	Ile	Glu	Glu	Tyr	Ile	Ser	Lys	Gln	Ala	Lys	Ala	Ser	Glu	Val
65					70				75					80	
Met	Gly	Pro	Val	Glu	Ala	Ala	Pro	Glu	Tyr	Arg	Val	Ile	Val	Asp	Ala
				85					90					95	
Asn	Asn	Leu	Thr	Val	Glu	Ile	Glu	Asn	Glu	Leu	Asn	Ile	Ile	His	Lys
			100					105					110		
Phe	Ile	Arg	Asp	Lys	Tyr	Ser	Lys	Arg	Phe	Pro	Glu	Leu	Glu	Ser	Leu
		115					120					125			
Val	Pro	Asn	Ala	Leu	Asp	Tyr	Ile	Arg	Thr	Val	Lys	Glu	Leu	Gly	Asn
		130				135					140				
Ser	Leu	Asp	Lys	Cys	Lys	Asn	Asn	Glu	Asn	Leu	Gln	Gln	Ile	Leu	Thr
145					150					155				160	
Asn	Ala	Thr	Ile	Met	Val	Val	Ser	Val	Thr	Ala	Ser	Thr	Thr	Gln	Gly
				165					170					175	
Gln	Gln	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Arg	Leu	Glu	Glu	Ala	Cys	Asp

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 Met Ala Leu Glu Leu Asn Ala Ser Lys His Arg Ile Tyr Glu Tyr Val
 195 200 205
 Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly
 210 215 220
 Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Gly Leu Thr Asn
 225 230 235 240
 Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg
 245 250 255
 Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly
 260 265 270
 Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
 275 280 285
 Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
 290 295 300
 Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu
 305 310 315 320
 Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro
 325 330 335
 Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys
 340 345 350
 Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu
 355 360 365
 Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu
 370 375 380
 Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly
 385 390 395 400
 Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr
 405 410 415
 Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser
 420 425 430
 Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr
 435 440 445
 Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn
 450 455 460
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 465 470 475 480
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 Met Ser Thr

<210> 3589

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3589

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 180

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 300
 gagtgaagaa ccaggcagaa cccaggcagc agatgggata ggagtttcca agccagtgtct
 360
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 480
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 540
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<210> 3590

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3590

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Asn	Leu	Ile	Leu	Pro	Ser	Pro	Asp	Ser	Ser	Pro	Gln	Ala	Lys	Pro	Leu
			20					25					30		
Asp	Pro	Met	Ser	Pro	Phe	His	Leu	Ser	Ser	Val	Ile	Leu	Cys	Arg	Pro
	35						40					45			
Ser	Ala	Trp	Pro	Cys	Leu	Arg	Ser	Ser	Ser	Pro	Pro	Ala	Ala	Gln	Gly
	50					55					60				
Ser	Phe	Val	Ser	Ala	Gln	Glu	Gly	Pro	Tyr	Asn	Pro	Ser	Trp	Leu	Trp
65					70					75				80	
Pro	Gly	Pro	Cys	Phe	Val	Ser	Glu	Leu	Gly	Gly	Pro	Ile	Pro	Lys	His
				85					90					95	
Trp	Leu	Gly	Asn	Ser	Tyr	Pro	Ile	Cys	Cys	Leu	Gly	Ser	Ala	Trp	Phe
			100					105					110		
Phe	Thr	His	Ile	Ser											
			115												

<210> 3591

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3591

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 180

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 300
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 669

<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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		20						25					30		
Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
	35						40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
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Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
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Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85						90					95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
	115						120					125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
	130					135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
145					150					155				160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165						170					175	
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Ala	Leu	Gln	Gln	Met	Arg	Ser	Lys	Leu	Asn	His	Asn	Ala	Ala	Phe	Met
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	210						215						220		

<210> 3593
 <211> 1005
 <212> DNA
 <213> Homo sapiens

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<210> 3594
 <211> 282
 <212> PRT
 <213> Homo sapiens

<400> 3594
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 35 40 45
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

50		55		60
Pro Leu Thr Pro Leu Gln Glu Glu Met Ala Ser Leu Leu Gln Gln Ile				
65	70	75	80	
Glu Ile Glu Arg Ser Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp				
	85	90	95	
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu				
	100	105	110	
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu				
	115	120	125	
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp				
	130	135	140	
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu				
145	150	155	160	
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu				
	165	170	175	
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu				
	180	185	190	
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu				
	195	200	205	
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met				
	210	215	220	
Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu				
225	230	235	240	
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val				
	245	250	255	
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	260	265	270	
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275	280			

<210> 3595

<211> 1903

<212> DNA

<213> Homo sapiens

<400> 3595

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<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

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 Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile
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 Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly
 65 70 75 80
 Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met
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 Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly
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 Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr
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 Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr
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 Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu
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 Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly
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 305 310 315 320
 Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu
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 Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser
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 Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg
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 Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val
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 Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg
 405 410 415
 Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro
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 Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr

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Glu	Ala	Ser	Ala	Ala	Gly	Leu
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Glu	Asp	Gly	Pro	Glu	Leu	Glu
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<210> 3597

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 3597

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<210> 3598

<211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3598

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			20					25					30		
Asp	Tyr	Asn	Lys	Asp	Asp	Met	Ser	Tyr	Arg	Arg	Ile	Ser	Ala	Val	Glu
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Pro	Lys	Thr	Ala	Leu	Pro	Phe	Asn	Arg	Phe	Leu	Pro	Asn	Lys	Ser	Arg
	50					55				60					
Gln	Pro	Ser	Tyr	Val	Pro	Ala	Pro	Leu	Arg	Lys	Lys	Lys	Pro	Asp	Lys
65				70					75					80	
His	Glu	Asp	Asn	Arg	Arg	Ser	Trp	Ala	Ser	Pro	Val	Tyr	Thr	Glu	Ala
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Asp	Gly	Thr	Phe	Ser	Arg	Ser	Lys	Ser	Met	Ser	Asp	Val	Ser	Ala	Glu
		100					105					110			
Asp	Val	Gln	Asn	Leu	Arg	Gln	Leu	Arg	Tyr	Glu	Glu	Met	Gln	Lys	Ile
	115					120				125					
Lys	Ser	Gln	Leu	Lys	Glu	Gln	Asp	Gln	Lys	Trp	Gln	Asp	Asp	Leu	Ala
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<210> 3599
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 3599

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660

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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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			20					25					30		
Met	Val	Glu	Val	Arg	Ser	Trp	Ser	Gly	Ser	Leu	Val	Gly	Trp	Leu	Ala
		35					40					45			
Pro	Arg	Pro	Leu	Ser	Val	Pro	Ile	Glu	His	Leu	Leu	Gly	Ala	Lys	Asn
		50				55					60				
Cys	Cys	Arg	His	Gly	Gly	Gln	Trp	Val	Arg	Arg	Ala	Val	Pro	Ala	Val
65					70				75					80	
Leu	Ser	Leu	Val	Gly	Ala	Ser	Ser	Leu	His	His	Ala	Val	Tyr	Leu	Phe
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<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 3601

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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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			20					25					30		
Glu	Ala	Arg	Glu	Leu	Met	Tyr	Ser	Gly	Ala	Leu	Leu	Phe	Ser	His	
			35				40					45			
Gly	Gln	Gln	Asn	Ser	Ala	Ala	Asp	Leu	Ser	Met	Leu	Val	Leu	Glu	Ser
			50				55				60				
Leu	Glu	Lys	Ala	Glu	Val	Glu	Val	Ala	Asp	Glu	Leu	Leu	Glu	Asn	Leu
65					70					75				80	
Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro	Asn	Ser	Pro	Glu	Arg	Val	Thr
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Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser	Ser	Gly	Gly	Ser	Gly	Lys	Leu
			100					105					110		
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			115				120					125			
Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His	Phe	Leu	His	Ser	Ala	Asp	Gly
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Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser	Val	Val	Phe	Thr	Thr	Tyr	Thr
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Gln	Lys	His	Pro	Ser	Ile	Glu	Asp	Gly	Pro	Pro	Phe	Val	Glu	Pro	Leu

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225	230	235
Asp Pro Met Tyr Asn Glu Tyr Leu Asp Arg Ile Gly Gln Leu Phe Phe		240
	245	250
Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn		255
	260	265
Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu		270
	275	280
Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp		285
290	295	

<210> 3603

<211> 1082

<212> DNA

<213> Homo sapiens

<400> 3603

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1020

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 1080
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 1082

<210> 3604
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 3604
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 Val Ala Ala Gln Glu Glu Pro Asp Lys Glu Gly Lys Glu Lys Pro His
 35 40 45
 Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
 50 55 60
 Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
 65 70 75 80
 Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
 85 90 95
 Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
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 <211> 2004
 <212> DNA
 <213> Homo sapiens

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2004

<210> 3606

<211> 324
 <212> PRT
 <213> Homo sapiens

<400> 3606

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 20           25           30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
 35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
 50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
 65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
 85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
 100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
 115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
 130          135          140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
 145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
 165          170          175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
 180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
 195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
 210          215          220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
 225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
 245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
 260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
 275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
 290          295          300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
 305          310          315          320
Ile Glu Leu Asp

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<210> 3607
 <211> 1726
 <212> DNA
 <213> Homo sapiens

<400> 3607

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 120
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 180
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 240
 atgatacatg cctatatttatt tgtcactaat aacgacaaag accgagaagg gcatgggtcca
 300
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 360
 catacttttc acgatgaggt ggatgagtat cggcgacact ggtggcgctg caatggggccg
 420
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 480
 gctcatgact attgggtggg tgagcaccag aaaacctgtg gaggcactta cataaaaaatc
 540
 aaggaaccag agaattactc aaaaaaaggc aaaggaaagg caaaactagg aaaggaacca
 600
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 660
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 720
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 780
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 1260
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 1440
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 1500
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 1560
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 1620

tttttagata cttttgttct ttcttgctct taaggatttt aaaaacctgt taatcttttt
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 1726

<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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 Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser
 35 40 45
 Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu
 50 55 60
 Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu
 65 70 75 80
 Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu
 85 90 95
 Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu
 100 105 110
 Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp
 115 120 125
 Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg
 130 135 140
 Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser
 145 150 155 160
 Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr
 165 170 175
 Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly
 180 185 190
 Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp
 195 200 205
 Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys
 210 215 220
 Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu
 225 230 235 240
 Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn
 245 250 255
 His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe
 260 265 270
 Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val
 275 280 285
 Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser
 290 295 300
 Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile
 305 310 315 320
 Ser Val Thr Val Gly Asn Ile Pro Lys Asn Ser Val Ser Ser Ser Ser
 325 330 335
 Gln Arg Arg Val Ser Ser Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys

340 345 350
 Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
 355 360 365
 Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
 370 375 380
 Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
 385 390 395 400
 Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser
 405 410 415
 Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
 420 425 430
 Gly Val Ser Asp
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<210> 3609

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 3609

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 120
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 180
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 240
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 300
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 780
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 840
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 900
 aagaggagggt gatgccgggc acgggcgctc ctgctgccgt ctctgtcca ggaagctgcc
 960
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 1020

tctcattttct agaggtctcc acctttttat acactcagcc ttcctctctcc caggcaggag
 1080
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 1260
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<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

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Glu	Pro	Gln	Asp	Leu	Glu	Ser	Thr	Asn	Leu	Leu	Glu	Ser	Glu	Ala	Pro	35	40	45	
Arg	Asp	Tyr	Phe	Leu	Lys	Phe	Ala	Tyr	Ile	Val	Asp	Leu	Asp	Ser	Asp	50	55	60	
Thr	Ala	Asp	Lys	Phe	Leu	Gln	Leu	Xaa	Trp	Asn	Gln	Arg	Cys	Gln	Glu	65	70	75	80
Gly	Ala	Val	Ser	Tyr	Gln	Xaa	Tyr	Pro	Leu	Ser	Pro	Thr	Arg	Phe	Thr	85	90	95	
His	Cys	Glu	Gln	Val	Leu	Gly	Glu	Gly	Ala	Leu	Asp	Arg	Gly	Thr	Tyr	100	105	110	
Tyr	Trp	Glu	Val	Glu	Ile	Ile	Glu	Gly	Trp	Val	Ser	Met	Gly	Val	Met	115	120	125	
Ala	Ala	Asp	Phe	Ser	Pro	Gln	Glu	Pro	Tyr	Asp	Arg	Gly	Arg	Leu	Gly	130	135	140	
Arg	Asn	Ala	His	Ser	Cys	Cys	Leu	Gln	Trp	Asn	Gly	Arg	Ser	Phe	Ser	145	150	155	160
Val	Trp	Phe	His	Gly	Leu	Glu	Ala	Pro	Leu	Pro	His	Pro	Phe	Ser	Pro	165	170	175	
Thr	Val	Gly	Val	Cys	Leu	Glu	Tyr	Ala	Asp	Arg	Ala	Leu	Ala	Phe	Tyr	180	185	190	
Ala	Val	Arg	Asp	Gly	Lys	Met	Ser	Leu	Leu	Arg	Arg	Leu	Lys	Ala	Ser	195	200	205	
Arg	Pro	Arg	Arg	Gly	Gly	Ile	Pro	Ala	Ser	Pro	Ile	Asp	Pro	Phe	Gln	210	215	220	
Ser	Arg	Leu	Asp	Ser	His	Phe	Ala	Gly	Leu	Phe	Thr	His	Arg	Leu	Lys	225	230	235	240
Pro	Ala	Phe	Phe	Leu	Glu	Ser	Val	Asp	Ala	His	Leu	Gln	Ile	Gly	Pro	245	250	255	
Leu	Lys	Lys	Ser	Cys	Ile	Ser	Val	Leu	Lys	Arg	Arg					260	265		

<210> 3611

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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 120
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 240
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 300
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 360
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 420
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 480
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 540
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 660
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 780
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 816

<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

Tyr	Gly	Val	His	Tyr	Tyr	Ala	Val	Lys	Asp	Lys	Gln	Gly	Ile	Pro	Trp
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Trp	Leu	Gly	Leu	Ser	Tyr	Lys	Gly	Ile	Phe	Gln	Tyr	Asp	Tyr	His	Asp
			20					25					30		
Lys	Val	Lys	Pro	Arg	Lys	Ile	Phe	Gln	Trp	Arg	Gln	Leu	Glu	Asn	Leu
			35				40					45			
Tyr	Phe	Arg	Glu	Lys	Lys	Phe	Ser	Val	Glu	Val	His	Asp	Pro	Arg	Arg
			50			55					60				
Ala	Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His
65				70					75					80	
Thr	Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala
				85				90						95	
Ile	Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys
			100				105					110			
Ile	His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu

115					120					125					
Thr	Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly
130					135					140					
Lys	Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly
145					150					155					
Glu	Ser	Asp	Ser	Ser	Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu
165					170					175					
Lys	Ser	Arg	Gln	Glu	Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu
180					185					190					
Glu	Leu	Lys	Lys	Leu	Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu
195					200					205					
Pro	Val	Glu	Tyr	Pro	Leu	Asp	Pro	Gly	Glu	Glu	Pro	Pro	Ile	Val	Arg
210					215					220					
Arg	Arg	Ile	Gly	Thr	Ala	Phe	Lys	Leu	Asp	Glu	Gln	Lys	Ile	Leu	Pro
225					230					235					
Lys	Gly	Glu	Glu	Ala	Glu	Leu	Glu	Arg	Leu	Glu	Arg	Glu	Phe	Ala	Ile
245					250					255					
Gln	Ser	Gln	Ile	Thr	Glu	Ala	Ala	Arg	Arg	Leu	Ala	Ser	Asp	Pro	Asn
260					265					270					

<210> 3613

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3613

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120

cacctggatc cctgcagccc agcctggaat gcgtctggat taggggaaag acgagaaacg
180

acactccagg tgttgcacgg cccaccaaag cggggaagata gggcagttgc tcagaccaa
240

tactgtatct agtgcttctg ctctatctt caatcgtggg gttcttttta atgcaaagtg
300

tcaçaaggcc aggaattccc atgtgtgctc agttggccca cagcatcatt gtgcctagga
360

aactgcttca atttatcaag tcctctgggc tgggaatctc actgaattcc aaacggcgga
420

aagaggaaac tttcccaacc cgatgtgggt gtgacgcgag ccagggggccc cagggacact
480

gtcccagagc acaccgtccc cctttaacag caactggagc ttggattcgc tcttatattg
540

tacagtcctt tgcaccattg ccctggagca cccgcacacg cgcacgcac tccggccgcg
600

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<210> 3614

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3614

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His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
      20           25           30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
      35           40           45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
      50           55           60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
65           70           75           80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
      85           90           95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
      100          105          110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro Pro
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<210> 3615

<211> 1388

<212> DNA

<213> Homo sapiens

<400> 3615

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120
cagtccccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
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240
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300
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360
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420
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480
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780
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840
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900

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<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

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Gly	Asp	Ser	Ala	Ala	Glu	Met	Asn	Gly	Glu	Glu	Glu	Glu	Ser	Glu	Glu
			20					25					30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
		35					40					45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
	50					55					60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70				75					80	
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
				85					90					95	
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
		100						105					110		
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
	115						120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
	130					135					140				
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu
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Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
				165					170					175	
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
		180						185					190		
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
	195						200					205			
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[illegible]

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<210> 3617
<211> 804
<212> DNA
<213> Homo sapiens
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240
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660
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<210> 3618
<211> 148
<212> PRT
<213> Homo sapiens
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<400> 3618
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[illegible]

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<210> 3619
<211> 948
<212> DNA
<213> Homo sapiens
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900

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948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

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			20					25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
		35					40					45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
	50					55					60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
65					70					75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85					90					95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
			100					105					110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
		115					120					125			
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
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<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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180
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<210> 3622

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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			20					25					30		
Glu	Ser	Gly	Phe	Asp	Pro	Asn	Ile	Arg	Asp	Ser	Arg	Gly	Arg	Thr	Gly
		35					40					45			
Leu	His	Leu	Ala	Ala	Ala	Arg	Gly	Asn	Val	Asp	Ile	Cys	Gln	Leu	Leu
		50				55					60				
His	Lys	Phe	Gly	Ala	Asp	Leu	Leu	Ala	Thr	Asp	Tyr	Gln	Gly	Asn	Thr
65					70					75				80	
Ala	Leu	His	Leu	Cys	Gly	His	Val	Asp	Thr	Ile	Gln	Phe	Leu	Val	Ser
			85						90					95	
Asn	Gly	Leu	Lys	Ile	Asp	Ile	Cys	Asn	His	Gln	Gly	Ala	Thr	Pro	Leu
		100						105					110		
Val	Leu	Ala	Lys	Arg	Arg	Gly	Val	Asn	Lys	Asp	Val	Ile	Arg	Leu	Leu
		115					120					125			
Glu	Ser	Leu	Glu	Glu	Gln	Glu	Val	Lys	Gly	Phe	Asn	Arg	Gly	Thr	His
		130				135				140					
Ser	Lys	Leu	Glu	Thr	Met	Gln	Thr	Ala	Glu	Ser	Glu	Ser	Ala	Met	Glu
145					150					155				160	
Ser	His	Ser	Leu	Leu	Asn	Pro	Asn	Leu	Gln	Gln	Gly	Glu	Gly	Val	Leu

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Trp Arg Val Leu Leu Leu Ile Phe Val Ile Ala Leu Leu Ser Leu Gly
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Glu Leu Val His
225

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<210> 3623

<211> 586

<212> DNA

<213> Homo sapiens

<400> 3623

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<210> 3624

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3624

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                20                25                30
Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
                35                40                45
Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
                50                55                60
Gly Ile Asn Ile Thr Asp Leu Ala Tyr Asn Leu Leu Val Ser Gly Ala
                65                70                75                80
Leu Lys Thr His Phe Tyr Asn Ile Ala Pro Glu Ala Pro Thr Leu Ser

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			85					90					95				
His	Phe	Gln	Gln	Thr	Phe	Cys	Tyr	Leu	Met	His	Glu	Phe	His	Lys	Phe		
			100					105					110				
Trp	Ile	Glu	Glu	Asp	Pro	Met	Asp	Ile	Met	Glu	Phe	Asn	Arg	Val	Arg		
			115				120					125					
Glu	Lys	Phe	Arg	Lys	Arg	Ile	Ile	Lys	Gln	Leu	Gln	Asn	Pro	Asp	Met		
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<210> 3625

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<212> DNA

<213> Homo sapiens

<400> 3625

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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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Asn	Val	Val	Ala	Phe	Ser	Glu	Ile	Met	Ser	Met	Ile	Trp	Lys	Arg	Leu
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Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
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Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
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Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
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Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
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Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly	Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala
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Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
			180					185					190		
Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp	Gln	Glu	Glu	Arg	Ile	Arg	Arg	Gly
		195					200					205			
Asp	Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr
		210				215					220				
Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
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Ala	Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro
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 Gly Pro Pro Val Pro Pro Ala Ala Asp Pro Trp Gly Gly Pro Ala Pro
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 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro
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 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly
 305 310 315 320
 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser
 325 330 335
 Gly Pro Ser Ala Ser Asp Pro Trp Thr Pro Ala Pro Ala Phe Ser Asp
 340 345 350
 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr
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 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg
 370 375 380
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu
 385 390 395 400
 Leu Leu Ala Gly Glu Val Pro Ala Arg Ser Pro Gly Ala Phe Asp Met
 405 410 415
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro
 420 425 430
 Ala Ala Thr Pro Thr Pro Thr Pro Thr Arg Lys Thr Pro Glu Ser
 435 440 445
 Phe Leu Gly Pro Asn Ala Ala Leu Val Asp Leu Asp Ser Leu Val Ser
 450 455 460
 Arg Pro Gly Pro Thr Pro Pro Gly Ala Lys Ala Ser Asn Pro Phe Leu
 465 470 475 480
 Pro Gly Gly Gly Pro Ala Thr Gly Pro Ser Val Thr Asn Pro Phe Gln
 485 490 495
 Pro Ala Pro Pro Ala Thr Leu Thr Leu Asn Gln Leu Arg Leu Ser Pro
 500 505 510
 Val Pro Pro Val Pro Gly Ala Pro Pro Thr Tyr Ile Ser Pro Leu Gly
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<210> 3627

<211> 1760

<212> DNA

<213> Homo sapiens

<400> 3627

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 180
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 240
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 300

caccctcaag aagtcagtat ggtgcggaat ttaattcaga aagatagaac ctttgctgtt
360
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420
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540
caaattcttc ccgaatgtgt gttgccttca accatgtctg cagttcaatt agaatccctc
600
aataagtgcc agatatttcc ttcaaacct gtctcaagag aagaccaatg ttcataataa
660
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720
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<210> 3628

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3628

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 35 40 45
 Thr Ser Leu Pro Thr Ser His Thr Tyr Leu Gly Ala Asp Met Glu Glu
 50 55 60
 Phe His Gly Arg Thr Leu His Asp Asp Asp Ser Cys Gln Val Ile Pro
 65 70 75 80
 Val Leu Pro Gln Val Met Met Ile Leu Ile Pro Gly Gln Thr Leu Pro
 85 90 95
 Leu Gln Leu Phe His Pro Gln Glu Val Ser Met Val Arg Asn Leu Ile
 100 105 110
 Gln Lys Asp Arg Thr Phe Ala Val Leu Ala Tyr Ser Asn Val Gln Glu
 115 120 125
 Arg Glu Ala Gln Phe Gly Thr Thr Ala Glu Ile Tyr Ala Tyr Arg Glu
 130 135 140
 Glu Gln Asp Phe Gly Ile Glu Ile Val Lys Val Lys Ala Ile Gly Arg
 145 150 155 160
 Gln Arg Phe Lys Val Leu Glu Leu Arg Thr Gln Ser Asp Gly Ile Gln
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 Gln Ala Lys Val Gln Ile Leu Pro Glu Cys Val Leu Pro Ser Thr Met
 180 185 190
 Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe Pro Ser
 195 200 205
 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys
 210 215 220
 Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp Pro Arg
 225 230 235 240
 Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg Ile Lys
 245 250 255
 Lys Gln Leu Arg Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser Leu Pro
 260 265 270
 Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu Pro Ile
 275 280 285
 Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala Ile Gln
 290 295 300
 Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser Leu Cys
 305 310 315 320
 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe
 325 330 335
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly
 340 345 350
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu
 355 360 365
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp
 370 375 380
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe
 385 390 395 400
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

405 410 415
 Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu Ile Ser
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 Pro Asp Lys Val Ile Leu Cys Leu
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<210> 3629
 <211> 695
 <212> DNA
 <213> Homo sapiens

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<210> 3630
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 3630
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 20 25 30
 Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
 35 40 45
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His
 50 55 60
 Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
 65 70 75 80
 Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly

				85				90					95		
Asn	Val	Ala	Gly	Val	Tyr	His	Lys	Ala	Leu	Met	Glu	Arg	Ala	Leu	Arg
			100					105					110		
Ala	Thr	Phe	Arg	Glu	Ala	Leu	Ser	Ser	Leu	His	Ser	Arg	Arg	Arg	Leu
		115					120					125			
Asp	Thr	Glu	Lys	Lys	His	Gln	Val	Ser	Arg	Ala					
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<210> 3631
<211> 864
<212> DNA
<213> Homo sapiens
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180
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660
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<210> 3632
<211> 222
<212> PRT
<213> Homo sapiens
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<400> 3632
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20 25 30
 Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile
 35 40 45
 Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
 50 55 60
 His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
 65 70 75 80
 Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
 85 90 95
 Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
 100 105 110
 Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
 115 120 125
 Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
 130 135 140
 Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
 145 150 155 160
 Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
 165 170 175
 Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
 180 185 190
 Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
 195 200 205
 Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg
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<210> 3633

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3633

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 300
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 420
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 480
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 660

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 720
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 780
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 840
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 1080
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<210> 3634

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3634

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Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
		35				40						45			
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
		50				55					60				
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65					70				75					80	
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
			85						90					95	
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
			100					105					110		
Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

	115		120		125	
His	Ser	Gly	Phe	Lys	Ile	Leu
	130		135		140	
Gln	Glu	Ala	Thr	Val	Leu	Thr
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Tyr	Gly	Ala	Asp	Trp	Ser	Trp
	165		170		175	
Pro	Ser	Trp	Ser	Phe	Pro	Ser
	180		185		190	
Lys	Gly	Ala	Ser	Glu	Leu	Pro
	195		200		205	
Asn	Asp	Gly	Glu	Gly	His	Ala
	210		215		220	
Thr	Glu	Gly	Met	Arg	Lys	Asn
225			230		235	
Thr	Thr	Arg	Asp	Cys	Gly	Val
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Glu	Trp	Glu	Gly	Asn		
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<210> 3635

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3635

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<210> 3636
<211> 278
<212> PRT
<213> Homo sapiens

<400> 3636
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Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln
35 40 45
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met
50 55 60
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile
65 70 75 80
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu
85 90 95
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr
100 105 110
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr
115 120 125
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser
130 135 140
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr
145 150 155 160
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr
165 170 175
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala
180 185 190
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu
195 200 205
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr
210 215 220
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile
225 230 235 240
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys
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<210> 3637
<211> 2128
<212> DNA
<213> Homo sapiens

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1680

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<210> 3638

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3638

Met	Ala	Ser	Ser	Leu	Thr	Cys	Thr	Gly	Val	Ile	Trp	Ala	Leu	Leu	Ser
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			20					25					30		
Leu	Trp	Gly	Ser	Gln	Leu	Gly	Lys	Pro	Val	Ser	Phe	Gly	Thr	Phe	Arg
			35				40					45			
Arg	Cys	Ser	Tyr	Pro	Val	His	Asp	Glu	Ser	Arg	Gln	Met	Met	Val	Met
			50			55					60				
Val	Glu	Glu	Cys	Gly	Arg	Tyr	Ala	Ser	Phe	Gln	Gly	Ile	Pro	Ser	Ala
			65			70				75				80	
Glu	Trp	Arg	Ile	Cys	Thr	Ile	Val	Thr	Gly	Leu	Gly	Cys	Gly	Leu	Leu
				85					90					95	
Leu	Leu	Val	Ala	Leu	Thr	Ala	Leu	Met	Gly	Cys	Cys	Val	Ser	Asp	Leu
			100					105					110		
Ile	Ser	Arg	Thr	Val	Gly	Arg	Val	Ala	Gly	Gly	Ile	Gln	Phe	Leu	Gly
			115				120					125			
Gly	Leu	Leu	Ile	Gly	Ala	Gly	Cys	Ala	Leu	Tyr	Pro	Leu	Gly	Trp	Asp
			130			135					140				
Ser	Glu	Glu	Val	Arg	Gln	Thr	Cys	Gly	Tyr	Thr	Ser	Gly	Gln	Phe	Asp
			145			150				155				160	
Leu	Gly	Lys	Cys	Glu	Ile	Gly	Trp	Ala	Tyr	Tyr	Cys	Thr	Gly	Ala	Gly
				165				170						175	
Ala	Thr	Ala	Ala	Met	Leu	Leu	Cys	Thr	Trp	Leu	Ala	Cys	Phe	Ser	Gly
			180					185					190		
Lys	Lys	Gln	Lys	His	Tyr	Pro	Tyr								
			195				200								

<210> 3639

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3639
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 120
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 180
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 240
 aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atatctcttt
 300
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 360
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 420
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 480
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<210> 3640
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 3640
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 20 25 30
 Ser Leu Leu Asn Pro Leu Lys Gly Glu Ile Phe Leu Leu Pro Ala Arg
 35 40 45
 Val Tyr Gly Asp Asp Thr Leu Arg Pro Cys Trp Cys Trp Lys Asn His
 50 55 60
 Leu Trp Gln Cys His Phe Leu Arg Lys Thr Tyr Gln Ser Phe Ala Met
 65 70 75 80
 Phe Thr Ile Asp Lys Lys Arg Asp Met Gln Ser Val Lys Cys Ile Thr
 85 90 95
 Leu Ile Ile Cys Leu His
 100

<210> 3641
 <211> 455
 <212> DNA
 <213> Homo sapiens

<400> 3641
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 120
 agtccccggag cagtcacgcg agccggggacc ttgccccgct ggaacgcaga agcggccgtg
 180
 gagctcgaga cgctcgcgcg ctcacctcct gggcccctgt gcgtggggaa gtcaggaaga
 240
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 300
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 455

<210> 3642
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3642
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 20 25 30
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 35 40 45
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu
 50 55 60
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser
 65 70 75 80
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala
 85 90 95
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro
 100 105 110
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser
 115 120 125
 Pro Arg Glu Gln Phe Gly Thr Val Arg Ile Gly Phe Arg Glu Pro Ala
 130 135 140
 Phe Lys Thr Arg
 145

<210> 3643
 <211> 2243
 <212> DNA
 <213> Homo sapiens

<400> 3643
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<210> 3644

<211> 560

<212> PRT

<213> Homo sapiens

<400> 3644

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			20					25					30		
Asp	Met	Ser	Asp	Arg	Arg	Ala	Ala	Val	Ile	Phe	Ala	Asp	Thr	Leu	Thr
		35				40					45				
Leu	Leu	Phe	Glu	Gly	Ile	Ala	Arg	Ile	Val	Glu	Thr	His	Gln	Pro	Ile
	50				55					60					
Val	Glu	Thr	Tyr	Tyr	Gly	Pro	Gly	Arg	Leu	Tyr	Thr	Leu	Ile	Lys	Tyr
65					70				75					80	
Leu	Gln	Val	Glu	Cys	Asp	Arg	Gln	Val	Glu	Lys	Val	Val	Asp	Lys	Phe
			85					90					95		
Ile	Lys	Gln	Arg	Asp	Tyr	His	Gln	Gln	Phe	Arg	His	Val	Gln	Asn	Asn
		100						105					110		
Leu	Met	Arg	Asn	Ser	Thr	Thr	Glu	Lys	Ile	Glu	Pro	Arg	Glu	Leu	Asp
		115					120					125			
Pro	Ile	Leu	Thr	Glu	Val	Thr	Leu	Met	Asn	Ala	Arg	Ser	Glu	Leu	Tyr
	130					135					140				
Leu	Arg	Phe	Leu	Lys	Lys	Arg	Ile	Ser	Ser	Asp	Phe	Glu	Val	Gly	Asp
145				150					155					160	
Ser	Met	Ala	Ser	Glu	Glu	Val	Lys	Gln	Glu	His	Gln	Lys	Cys	Leu	Asp
			165					170					175		
Lys	Leu	Leu	Asn	Asn	Cys	Leu	Leu	Ser	Cys	Thr	Met	Gln	Glu	Leu	Ile
		180						185				190			
Gly	Leu	Tyr	Val	Thr	Met	Glu	Glu	Tyr	Phe	Met	Arg	Glu	Thr	Val	Asn
	195					200						205			
Lys	Ala	Val	Ala	Leu	Asp	Thr	Tyr	Glu	Lys	Gly	Gln	Leu	Thr	Ser	Ser

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      245              250              255
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu
      260              265              270
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val
      275              280              285
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe
      290              295              300
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu
305              310              315              320
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu
      325              330              335
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile
      340              345              350
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu
      355              360              365
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr
      370              375              380
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn
385              390              395              400
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp
      405              410              415
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu
      420              425              430
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp
      435              440              445
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys
      450              455              460
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp
465              470              475              480
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp
      485              490              495
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu
      500              505              510
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser
      515              520              525
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu
      530              535              540
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu
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<210> 3645

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3645

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120

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tcgggttgat ttcctcatct tctatttgat gggctaactg ctctatggaa ggaagatctt
 180
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 240
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 300
 catcgtaccg agcacacagg ttgttgagga gttgctcgtg ctggccaaac aagcggatgt
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 ggatgagccg gtcaagatta gctggtggct cggtcacagg ctcaagggtt ggatcaaaga
 660
 gatgtagcat agctgctgcc agctgaaagc caatttcttt ggaactgaag ttgctggtgg
 720
 gccattcat ttgagtagta tctattggag aatttggtga gggagccagc agctctgatg
 780
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 823

<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

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Leu	Ala	Ala	Ala	Met	Leu	His	Leu	Phe	Asp	Pro	Thr	Leu	Glu	Pro	Val
			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
		35				40					45				
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
		50				55					60				
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
65					70				75					80	
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
			85					90					95		
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
			100					105					110		
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
		115					120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
		130				135					140				
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
145				150					155					160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
			165					170					175		
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[illegible]

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<210> 3647
<211> 584
<212> DNA
<213> Homo sapiens
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360
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420
gccgctccga ccccgcggtc cccgcagacc ccacactggc gcgcggccac aacgtcatca
480
atgtcatcgt ccccgagagc cgagcccact tcttcagca gctgggctac gtgctggcca
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<210> 3648
<211> 63
<212> PRT
<213> Homo sapiens
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Ala Trp Leu Trp Ala Arg Met Pro Leu Ser Ala Val Thr Ser His Cys
          20          25          30
Val Ser Ser Arg Trp Arg Ser Pro Thr Arg Ala Pro Thr Pro Ala Thr
          35          40          45
Cys Thr Thr Ile Thr Val Ala Cys Thr Asn Ala Ala Ser Ser Thr
          50          55          60

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<210> 3649
<211> 648

<212> DNA

<213> Homo sapiens

<400> 3649

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180
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240
aggaatcaga aggctggtgt gtttaagacc cagaaaaatat caagctgcgt tttacgatgg
300
gataatgaga cagatgtctc tcaactggaa ggacattttg acattgttat gtgtgctgac
360
tgcctgtttc tggaccagta cagagccagc cttgttgatg caataaagag attactccag
420
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480
aatctagctg aaaaagctgg tttctgtatc caaagacatg aaaattatga tgaacacatt
540
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<210> 3650

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3650

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			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
		35					40					45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
	50				55					60					
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
65				70					75					80	
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
			85					90					95		
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
		100					105					110			
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
	115				120						125				
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
	130				135						140				
Gly	Phe	Cys	Ile	Gln	Arg	His	Glu	Asn	Tyr	Asp	Glu	His	Ile	Ser	Asn
145			150					155						160	
Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

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<210> 3651
 <211> 2469
 <212> DNA
 <213> Homo sapiens

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 180
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 360
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 420
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 480
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 720
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<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

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 20 25 30
 Gly Ile Asp Tyr Asn Ser Trp Glu Val Gly Pro Lys Phe Arg Gly Val
 35 40 45
 Lys Met Ile Pro Pro Gly Ile His Phe Leu His Tyr Ser Ser Val Asp

50						55						60					
Lys	Ala	Asn	Pro	Lys	Glu	Val	Gly	Pro	Arg	Met	Gly	Phe	Phe	Leu	Ser		
65					70					75					80		
Leu	His	Gln	Arg	Gly	Leu	Thr	Val	Leu	Arg	Trp	Ser	Thr	Leu	Arg	Glu		
				85					90					95			
Glu	Val	Asp	Leu	Ser	Pro	Ala	Pro	Glu	Ser	Glu	Val	Glu	Ala	Met	Arg		
			100					105					110				
Ala	Asn	Leu	Gln	Glu	Leu	Asp	Gln	Phe	Leu	Gly	Pro	Tyr	Pro	Tyr	Ala		
	115						120					125					
Thr	Leu	Lys	Lys	Trp	Ile	Ser	Leu	Thr	Asn	Phe	Ile	Ser	Glu	Ala	Thr		
130						135					140						
Val	Glu	Lys	Leu	Gln	Pro	Glu	Asn	Arg	Gln	Ile	Cys	Ala	Phe	Ser	Asp		
145				150					155					160			
Val	Leu	Pro	Val	Leu	Ser	Met	Lys	His	Thr	Lys	Asp	Arg	Val	Gly	Gln		
			165					170						175			
Asn	Leu	Pro	Arg	Cys	Gly	Ile	Glu	Cys	Lys	Ser	Tyr	Gln	Glu	Gly	Leu		
	180						185					190					
Ala	Arg	Leu	Pro	Glu	Met	Lys	Pro	Arg	Ala	Gly	Thr	Glu	Ile	Arg	Phe		
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Ser	Glu	Leu	Pro	Thr	Gln	Met	Phe	Pro	Glu	Gly	Ala	Thr	Pro	Ala	Glu		
210					215						220						
Ile	Thr	Lys	His	Ser	Met	Asp	Leu	Ser	Tyr	Ala	Leu	Glu	Thr	Val	Leu		
225				230					235					240			
Ile	Lys	Gln	Phe	Pro	Ser	Ser	Pro	Gln	Asp	Val	Leu	Gly	Glu	Leu	Gln		
		245						250					255				
Phe	Ala	Phe	Val	Cys	Phe	Leu	Leu	Gly	Asn	Val	Tyr	Glu	Ala	Phe	Glu		
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His	Trp	Lys	Arg	Leu	Leu	His	Leu	Leu	Cys	Arg	Ser	Glu	Ala	Ala	Met		
	275					280						285					
Met	Lys	His	His	Thr	Leu	Tyr	Ile	Asn	Leu	Met	Ser	Ile	Leu	Tyr	His		
	290				295					300							
Gln	Leu	Gly	Glu	Ile	Pro	Ala	Asp	Phe	Phe	Val	Asp	Ile	Val	Ser	Gln		
305				310						315				320			
Asp	Asn	Phe	Leu	Thr	Ser	Thr	Leu	Gln	Val	Phe	Phe	Ser	Ser	Ala	Cys		
		325					330						335				
Ser	Ile	Ala	Val	Asp	Ala	Thr	Leu	Arg	Lys	Lys	Ala	Glu	Lys	Phe	Gln		
	340					345						350					
Ala	His	Leu	Thr	Lys	Lys	Phe	Arg	Trp	Asp	Phe	Ala	Ala	Glu	Pro	Glu		
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<210> 3653

<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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tcttctccac tggagatgct ccttcagctc agcaggacgc tagctcgga ctcagactgc
180

acatttttgc ggattgggag gagggccgac gccgtggccg gatagtctct ggagctgcct
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 283

<210> 3654
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 3654
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 35 40 45
 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg
 50 55 60
 Arg Arg Gly Arg Ile Val Ser Gly Ala Ala Phe Trp Gly Cys Leu Pro
 65 70 75 80
 Val Gly Ile Phe Ser Thr Pro Arg
 85

<210> 3655
 <211> 3477
 <212> DNA
 <213> Homo sapiens

<400> 3655
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<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

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Cys	Met	Ala	Ser	Leu	Phe	Pro	Ala	Trp	Glu	Pro	Pro	Leu	Ile	Thr	Leu
			20					25				30			
Lys	Ala	Gly	Thr	Gly	Ser	Met	Arg	Ser	Gly	Phe	Pro	Ala	Lys	Ser	Ala
		35					40				45				
Met	Trp	Arg	Tyr	Arg	Gly	Thr	Pro	Phe	Ser	Lys	Ala	Val	Glu	His	Ile
	50					55				60					
Asn	Lys	Thr	Ile	Ala	Pro	Ala	Leu	Val	Ser	Lys	Lys	Leu	Asn	Val	Thr

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      85          90          95
Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu Gly Val Ser Leu Ala
      100          105          110
Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val Pro Leu Tyr Arg His
      115          120          125
Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile Leu Pro Val Pro Ala
      130          135          140
Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly Asn Lys Leu Ala Met
      145          150          155          160
Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala Asn Phe Arg Glu Ala
      165          170          175
Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu Lys Asn Val Ile Lys
      180          185          190
Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly Asp Glu Gly Gly Phe
      195          200          205
Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu Glu Leu Leu Lys Thr
      210          215          220
Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val Val Ile Gly Met Asp
      225          230          235          240
Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys Tyr Asp Leu Asp Phe
      245          250          255
Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser Pro Asp Gln Leu Ala
      260          265          270
Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser Ile Glu
      275          280          285
Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala
      290          295          300
Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro
      305          310          315          320
Lys Arg Ile Ala Gln Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu
      325          330          335
Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys
      340          345          350
Lys Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser
      355          360          365
Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys
      370          375          380
Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala
      385          390          395          400
Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala
      405          410          415
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<210> 3657

<211> 337

<212> DNA

<213> Homo sapiens

<400> 3657

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<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
		35				40						45			
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
	50					55					60				
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
65					70					75				80	
Gln	Arg	Val	His	Val	Gln	Val	Cys	His	Met	Phe	Ile	Phe	Gly	Ser	Arg
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<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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<210> 3660

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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			20					25					30		
Glu	Ile	Ser	Asp	Leu	Glu	Asn	Glu	Val	Glu	Asn	Lys	Thr	Ala	Gln	Ile
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Leu	Asn	Leu	Gln	Gln	His	Leu	Ser	Ala	Leu	Glu	Lys	Asp	Ile	Lys	His
			50			55					60				
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Met	Lys	Ile	Arg	Lys	Asn	Ile	Ser	Glu	Ile	Arg	Glu	Leu	Glu	Asn	Ile
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Glu	Glu	His	Gln	Ser	Val	Asp	Ile	Ala	Thr	Leu	Glu	Asp	Glu	Ala	Gln
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Glu	Asn	Lys	Ser	Lys	Met	Lys	Met	Val	Glu	Glu	His	Met	Glu	Gln	Gln
			115				120					125			
Lys	Glu	Asn	Met	Glu	His	Leu	Lys	Ser	Leu	Lys	Ile	Glu	Ala	Glu	Asn
			130				135					140			
Lys	Tyr	Asp	Ala	Ile	Lys	Phe	Lys	Ile	Asn	Gln	Leu	Ser	Glu	Leu	Ala
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Asp	Pro	Leu	Lys	Asp	Glu	Leu	Asn	Leu	Ala	Asp	Ser	Glu	Val	Asp	Asn
			165					170						175	
Gln	Lys	Arg	Gly	Lys	Arg	His	Tyr	Glu	Lys	Lys	Gln	Lys	Glu	His	Leu
			180					185					190		
Asp	Thr	Leu	Asn	Lys	Lys	Lys	Arg	Glu	Leu	Asp	Met	Lys	Glu	Lys	Glu
			195				200					205			
Leu	Glu	Glu	Lys	Met	Ser	Gln	Ala	Arg	Gln	Ile	Cys	Pro	Glu	Arg	Ile

210		215		220
Glu Val Glu Lys Ser Ala Ser Ile Leu Asp Lys Glu Ile Asn Arg Leu				
225		230		240
Arg Gln Lys Ile Gln Ala Glu His Ala Ser His Gly Asp Arg Glu Glu				
	245		250	255
Ile Met Arg Gln Tyr Gln Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp				
	260		265	270
Ser Lys Val Arg Thr Leu Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile				
	275		280	285
Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr				
	290		295	300
Leu Arg Cys Lys Leu Tyr Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr				
305		310		320
Cys Gly Lys Met Asn Phe Asp His Lys Asn Glu Thr Leu Ser Ile Ser				
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Val Gln Pro Gly Glu				
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<210> 3661

<211> 1117

<212> DNA

<213> Homo sapiens

<400> 3661

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900

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<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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		20					25					30			
Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
	35					40					45				
Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
	50				55					60					
Arg	Glu	Asn	Ser	Gln	Met	Asn	Glu	Ser	Ala	Pro	Gly	Thr	Tyr	Val	Val
65				70					75					80	
Gln	Asn	Pro	His	Ser	Ser	Glu	Leu	Pro	Thr	Leu	Asn	Phe	Gln	Asp	Thr
			85					90					95		
Val	Asn	Thr	Leu	Thr	Asn	Ser	Pro	Ala	Ile	Pro	Leu	Glu	Thr	Ser	Ala
			100					105					110		
Cys	Gln	Asp	Ile	Pro	Thr	Ser	Ala	Asn	Val	Gln	Asn	Ala	Glu	Gly	Thr
	115						120				125				
Lys	Trp	Gly	Glu	Glu	Ala	Leu	Lys	Met	Asp	Leu	Asp	Asn	Asn	Phe	Tyr
	130					135				140					
Ser	Thr	Glu	Val	Ser	Val	Ser	Ser	Thr	Glu	Asn	Ala	Val	Ser	Ser	Asp
145				150					155					160	
Leu	Arg	Ala	Gly	Asp	Val	Pro	Val	Leu	Ser	Leu	Ser	Asn	Ser	Ser	Glu
			165					170					175		
Asn	Ala	Ala	Ser	Val	Ile	Ser	Tyr	Ser	Gly	Ser	Ala	Pro	Ser	Val	Ile
			180					185				190			
Val	His	Ser	Ser	Gln	Phe	Ser	Ser	Val	Ile	Met	His	Ser	Asn	Ala	Ile
	195						200				205				
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Ser	Gln	Ser	Leu	Lys	Asp	Asp	Ser	Lys	Pro	Glu	Pro	Asp	Lys	Val	Gly
225				230					235				240		
Arg	Phe	Ala	Ser	Arg	Pro	Lys	Ser	Ile	Lys	Glu	Lys	Lys	Lys	Thr	Thr
			245					250					255		
Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
		260					265					270			
Pro	Gly	Gly	Ser	Leu	Ser	Lys	Thr	Thr	Asn	Ile	Ala	Glu	Glu	Thr	Ser
	275					280					285				
Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
	290				295					300					
Asn	Ser	Asn	Val	Ala	Pro	Leu	Cys	Gln	Ile	Thr	Val	Lys	Ile	Gly	Asn

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 Glu Ala Ile Val Lys Arg His Ile Leu Gly Ser Lys Leu Phe Tyr Lys
 325 330 335
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<210> 3663
 <211> 481
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
 35 40 45
 Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
 50 55 60
 Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
 65 70 75 80
 Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
 85 90 95
 Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

	100		105		110										
Arg	Asp	Leu	Ala	Glu	Gln	Cys	Val	Lys	Val	Ser	Ile	Thr	Tyr	Trp	Leu
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Ile	Thr	Tyr	Phe	Ser	Gln	Thr	Ser	Gln	Gly						
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<212> DNA

<213> Homo sapiens

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<212> DNA

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<213> Homo sapiens

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Cys	Gly	Pro	Ser	Phe	Asp	Ile	Ala	Ser	Ile	Ile	Pro	Phe	Leu	Glu	Pro
	290		295		300										
Leu	Ser	Glu	Asp	Thr	Ile	Ala	Gly	Leu	Ser	Val	His	Val	Leu	Cys	Arg
305			310		315									320	
Thr	Arg	Leu	Lys	Glu	Tyr	Glu	Gln	Cys	Ile	Asp	Ile	Leu	Leu	Glu	Arg
			325		330									335	
Cys	Pro	Glu	Ala	Val	Ile	Pro	Tyr	Ala	Asn	His	Glu	Leu	Lys	Glu	Glu
	340		345		350										
Asn	Arg	Thr	Leu	Trp	Trp	Lys	Lys	Leu	Leu	Pro	Glu	Leu	Cys	Gln	Arg
	355		360		365										
Ile	Lys	Cys	Gly	Gly	Glu	Lys	Tyr	Gln	Leu	Tyr	Leu	Ser	Ser	Leu	Lys
	370		375		380										

Ala
385

<210> 3671

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3671

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120
agggcatctg gggtaagtaa aaacaaacac atagagcctg cctggagaag ctcatgggtct
180
gatggaaaga taagcaagaa gagttaattt ctaatcaata tgataaaaag gtcagagagc
240
agtttctgaa aaacatgttt ttgagttgag tcctgaaaga caaggagatg ttagtaaagc
300
agagaaggga gaattcattc tagaaagatc agacaatgtg tgggaagggc agagtctgaa
360
aagagcatgc cccatttgga gaagcatcaa gaagcccacg cgttagaagc accggcccca
420
tgagacaaag acacagctag agagattgac taggccatgt cggaatgtcc tcttatttta
480
tacatacata agcatataga tacatatagc caaagttacc tttttaatga tcttttttac
540
ccagtgtatt ctggaggtcg aatggtcaca tatgaacatc tccgagaggt tgtgtttggc
600
aaaagtgaag atgagcatta tcccctttgg aaatcagtca ttggagggat gatggctggt
660
gttattggcc agtttttagc caatccaact gacctagtga aggttcagat gcaaattggaa
720
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca tgcatttgca
780
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828

<210> 3672

<211> 124
 <212> PRT
 <213> Homo sapiens

<400> 3672

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Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp Thr
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Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr Ser
      20             25             30
Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly
      35             40             45
Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly
      50             55             60
Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu
65             70             75             80
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys
      85             90             95
Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile Leu Ala
      100            105            110
Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val
      115            120

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<210> 3673
 <211> 1052
 <212> DNA
 <213> Homo sapiens

<400> 3673

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180
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240
acaaatgcat atatgctgat ctatagactg aaggatccag ccagaaatgc aaaatttcta
300
gaagtggatg aatacccaga acatattaaa aacttgggtgc agaaagagag agagttggaa
360
gaacaagaaa agagacaacg agaaattgag cgcaatacat gcaagataaa attattctgt
420
ttgcatccta caaaacaagt aatgatggaa aataaattgg aggttcataa ggataagaca
480
ttaaaggaag cagtagaaat ggcttataag atgatggatt tagaagaggt aatacccctg
540
gattgctgtc gccttggtta atatgatgag ttctatgatt atctagaacg gtcatatgaa
600
ggagaagaag atacaccaat ggggcttcta ctaggtggcg tcaagtcaac atatatgttt
660
gatctgctgt tggagacgag aaagcctgat caggttttcc aatcttataa acctggaggg
720
gagccatttt acaccatttt tagttggtct gtacttagaa ttttctgag aaaggttttt
780

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tttttattgt agcaatgaac ataatttaca ttttgtatat ggtcttaca tgtagaataa
 840
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 900
 agagttgtgt acataatttt aaaaacaaca aaaaacaaca aagcttctag cttacgggtct
 960
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 1020
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 1052

<210> 3674

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3674

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Phe	Ser	Val	Met	Val	His	Ser	Gly	Ser	Ala	Ala	Gly	Gly	His	Tyr	Tyr
		20					25						30		
Ala	Cys	Ile	Lys	Ser	Phe	Ser	Asp	Glu	Gln	Trp	Tyr	Ser	Phe	Asn	Asp
	35					40					45				
Gln	His	Val	Ser	Arg	Ile	Thr	Gln	Glu	Asp	Ile	Lys	Lys	Thr	His	Gly
	50					55					60				
Gly	Ser	Ser	Gly	Ser	Arg	Gly	Tyr	Tyr	Ser	Ser	Ala	Phe	Ala	Ser	Ser
65				70					75					80	
Thr	Asn	Ala	Tyr	Met	Leu	Ile	Tyr	Arg	Leu	Lys	Asp	Pro	Ala	Arg	Asn
				85					90					95	
Ala	Lys	Phe	Leu	Glu	Val	Asp	Glu	Tyr	Pro	Glu	His	Ile	Lys	Asn	Leu
			100						105					110	
Val	Gln	Lys	Glu	Arg	Glu	Leu	Glu	Gln	Glu	Lys	Arg	Gln	Arg	Glu	
	115						120					125			
Ile	Glu	Arg	Asn	Thr	Cys	Lys	Ile	Lys	Leu	Phe	Cys	Leu	His	Pro	Thr
	130					135						140			
Lys	Gln	Val	Met	Met	Glu	Asn	Lys	Leu	Glu	Val	His	Lys	Asp	Lys	Thr
145					150					155				160	
Leu	Lys	Glu	Ala	Val	Glu	Met	Ala	Tyr	Lys	Met	Met	Asp	Leu	Glu	Glu
			165						170					175	
Val	Ile	Pro	Leu	Asp	Cys	Cys	Arg	Leu	Val	Lys	Tyr	Asp	Glu	Phe	His
			180					185					190		
Asp	Tyr	Leu	Glu	Arg	Ser	Tyr	Glu	Gly	Glu	Glu	Asp	Thr	Pro	Met	Gly
	195						200					205			
Leu	Leu	Leu	Gly	Gly	Val	Lys	Ser	Thr	Tyr	Met	Phe	Asp	Leu	Leu	Leu
	210					215						220			
Glu	Thr	Arg	Lys	Pro	Asp	Gln	Val	Phe	Gln	Ser	Tyr	Lys	Pro	Gly	Gly
225				230						235				240	
Glu	Pro	Phe	Tyr	Thr	Ile	Phe	Ser	Trp	Ser	Val	Leu	Arg	Ile	Phe	Leu
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Arg	Lys	Val	Phe	Phe	Leu	Leu									
			260												

<210> 3675

<211> 837

<212> DNA

<213> Homo sapiens

<400> 3675

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120
gacagctata ttgtgcgtgt caaggctgtg gttatgacca gagatgactc cagcggggga
180
tggttcccac aggaaggagg cgggatcagt cgcgtcgggg tctgtaaggt catgcacccc
240
gaaggcaatg gacgaagcgg ctttctcatc catggtgaac gacagaaaga caaactggtg
300
gtattggaat gctatgtaag aaaggacttg gtctacacca aagccaatcc aacgtttcat
360
cactggaagg tcgataatag gaagtttggg cttactttcc aaagccctgc tgatgcccga
420
gcctttgaca ggggagtaag gaaagcaatc gaagacctta tagaagaagt agaaaatgat
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720
aaaaattctc cactgcagca catccaggta tcaaatacaga ggggttaaaga agccatagac
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837

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<210> 3676

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3676

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Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro
20     25     30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
35     40     45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
50     55     60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65     70     75     80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
85     90     95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
100    105    110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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115 120 125
 Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys
 130 135 140
 Asn Gln Arg Pro Arg Val Tyr Ser Cys His
 145 150

<210> 3677
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 3677
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 120
 tgccgaaaga gcatggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc
 180
 tccttgtcac acacatcctg caaatcacag tcttgtggag atgactctca ttcgtcctcg
 240
 tcttctctct catcatcctc atcctcgtcc tctcttctct gccctgggaa ctcggggagac
 300
 tgggataccta gctcgttctc gtcggcacat aagctctcgg gcctctggaa ttccccacat
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<210> 3678
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 3678
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 Leu Pro Pro Asp Phe Met Pro Lys Leu Val Lys Asn Leu Leu Gly Glu
 20 25 30
 Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp
 35 40 45
 Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His
 50 55 60
 Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser
 65 70 75 80
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly
 85 90 95
 Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu
 100 105 110
 Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser
 115 120 125
 Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala
 130 135

<210> 3679
 <211> 567

<212> DNA

<213> Homo sapiens

<400> 3679

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 120
 gagatcgcag agatcaaggc ccagctggag acagccctga agtggaggaa ctatgagggtg
 180
 aagctgcggc tgctgctgca cctggaggaa ctgcagatgg agcatgatat ccggcactat
 240
 gacctggagt cgggtgcccac gacctgggac cctgtggacc agaaccacag gctgctcacg
 300
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 360
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 420
 aaggtggaat tggaccgtgt caagctgagc ttttccatga gcctcctgag ccgcttttgtg
 480
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<210> 3680

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3680

Arg	Val	Lys	Gly	Tyr	Asp	Leu	Glu	Leu	Ser	Met	Ala	Leu	Gly	Thr	Tyr	1	5	10	15
Tyr	Pro	Pro	Pro	Arg	Leu	Arg	Gln	Leu	Pro	Met	Leu	Leu	Gln	Gly		20	25	30	
Thr	Ser	Ile	Phe	Thr	Ala	Pro	Lys	Glu	Ile	Ala	Glu	Ile	Lys	Ala	Gln	35	40	45	
Leu	Glu	Thr	Ala	Leu	Lys	Trp	Arg	Asn	Tyr	Glu	Val	Lys	Leu	Arg	Leu	50	55	60	
Leu	Leu	His	Leu	Glu	Glu	Leu	Gln	Met	Glu	His	Asp	Ile	Arg	His	Tyr	65	70	75	80
Asp	Leu	Glu	Ser	Val	Pro	Met	Thr	Trp	Asp	Pro	Val	Asp	Gln	Asn	Pro	85	90	95	
Arg	Leu	Leu	Thr	Leu	Glu	Val	Pro	Gly	Val	Thr	Glu	Ser	Arg	Pro	Ser	100	105	110	
Val	Leu	Arg	Gly	Asp	His	Leu	Phe	Ala	Leu	Leu	Ser	Ser	Glu	Thr	His	115	120	125	
Gln	Glu	Asp	Pro	Ile	Thr	Tyr	Lys	Gly	Phe	Val	His	Lys	Val	Glu	Leu	130	135	140	
Asp	Arg	Val	Lys	Leu	Ser	Phe	Ser	Met	Ser	Leu	Leu	Ser	Arg	Phe	Val	145	150	155	160
Asp	Gly	Leu	Thr	Phe	Lys	Val	Asn	Phe	Thr	Phe	Asn	Arg	Gln	Pro	Leu	165	170	175	
Arg	Val	Gln	His	Arg	Ala	Trp	Glu	Leu	Thr	Gly	Arg	Trp							

180

185

<210> 3681
 <211> 788
 <212> DNA
 <213> Homo sapiens

<400> 3681
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 120
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 180
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 240
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 300
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 788

<210> 3682
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3682
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 Ala Ala Thr Ala Pro Gln Ala Pro Val Met Gly Ser Val Ser Ser Leu
 20 25 30
 Ile Ser Gly Arg Pro Cys Pro Gly Gly Pro Ala Pro Pro Arg His His
 35 40 45
 Gly Pro Pro Gly Pro Thr Phe Arg Gln Gln Asp Gly Leu Leu Arg
 50 55 60
 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg
 65 70 75 80
 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg

				85				90				95			
Thr	Glu	Ser	Pro	Pro	Ser	Pro	Ser	Ser	Asp	Val	Glu	Asp	Ala	Arg	Glu
				100				105				110			
Gln	Arg	Ala	His	Asn	Ala	His	Leu	Arg	Gly	Pro	Pro	Pro	Lys	Leu	Ile
				115				120				125			
Pro	Val	Ser	Gly	Lys	Leu	Glu	Lys	Asn	Ile	Glu	Lys	Ile	Leu	Ile	Arg
				130				135				140			
Pro	Thr	Ala	Phe	Lys	Pro	Val	Leu	Pro	Lys	Pro	Arg	Gly	Ala	Pro	Ser
				145				150				155			
Leu	Pro	Ser	Phe	Met	Gly	Pro	Arg	Ala	Thr	Gly	Leu	Ser	Gly	Ser	Gln
				165				170				175			
Gly	Ser	Leu	Thr	Gln	Leu	Phe	Gly	Gly							
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<210> 3683
<211> 4421
<212> DNA
<213> Homo sapiens
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120
cgagggtgaa gcccgcgggc ccgcgaactg gactggtgga tctctcagac ctggggcccc
180
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1020

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gccagccagc agtccaagat ctccggctac agcacagagc actcgcactc ctccagcctc
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<211> 384

<212> PRT

<213> Homo sapiens

<400> 3684

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<211> 1293

<212> DNA

<213> Homo sapiens

<400> 3685

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<400> 3686

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Arg Val Pro Cys Leu Cys Pro Pro Arg Arg Arg His Pro Pro Arg Ser
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Phe Thr Ser Cys Thr Phe Ser Gly Ser Arg Ser His Ile His Pro Thr
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<210> 3687

<211> 566

<212> DNA

<213> Homo sapiens

<400> 3687

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 <212> PRT
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<211> 504

<212> PRT

<213> Homo sapiens

<400> 3690

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			50			55					60				
Gly	Gly	Asp	Leu	Leu	Cys	Cys	Asp	His	Cys	Pro	Ala	Ala	Phe	His	Leu
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Gln	Cys	Cys	Asn	Pro	Pro	Leu	Ser	Glu	Glu	Met	Leu	Pro	Pro	Gly	Glu
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Trp	Met	Cys	His	Arg	Cys	Thr	Val	Arg	Arg	Lys	Lys	Arg	Glu	Gln	Lys
			100					105					110		
Lys	Glu	Leu	Gly	His	Val	Asn	Gly	Leu	Val	Asp	Lys	Ser	Gly	Lys	Arg
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Thr	Thr	Ser	Pro	Ser	Ser	Asp	Thr	Asp	Leu	Leu	Asp	Arg	Ser	Ala	Ser
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 260 265 270
 Val Cys Phe Thr Cys Asn Arg Ser Cys Arg Val Ala Pro Leu Ile Gln
 275 280 285
 Cys Asp Tyr Cys Pro Leu Leu Phe His Met Asp Cys Leu Glu Pro Pro
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 370 375 380
 Ser Gln Tyr Gln Phe Pro Pro Pro Leu Ile Ala Pro Ala Ala Ile Arg
 385 390 395 400
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<211> 418

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Phe	Tyr	Val	Leu	Arg	Gln
			35				40					45			
Arg	Ile	Ala	Arg	Ile	Arg	Cys	Gln	Leu	Lys	Ala	Val	Cys	Gln	Pro	Arg
			50				55				60				
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<213> Homo sapiens

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<400> 3694
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<212> DNA

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<211> 146

<212> PRT

<213> Homo sapiens

<400> 3696

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Tyr	Phe	Ala	Glu	Tyr	Trp	Tyr	Gln	Ala	Gln	Cys	Cys	Gln	Tyr	Asp	Tyr
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Cys	Asn	Ser	Trp	Ser	Ser	Pro	Gln	Leu	Gln	Ser	Ser	Leu	Pro	Glu	Pro
	50					55					60				
His	Asp	Arg	Pro	Leu	Ala	Leu	Pro	Leu	Ser	Asp	Ser	Gln	Ile	Gln	Trp
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Phe	Tyr	Gln	Ala	Leu	Asn	Leu	Ser	Leu	Pro	Leu	Pro	Asn	Phe	His	Ala
			85						90					95	
Gly	Thr	Glu	Pro	Asp	Gly	Leu	Asp	Pro	Met	Val	Thr	Leu	Ser	Leu	Asn
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Leu	Gly	Leu	Ser	Phe	Ala	Glu	Leu	Arg	Arg	Met	Tyr	Leu	Phe	Leu	Asn
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<211> 550

<212> DNA

<213> Homo sapiens

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<211> 183

<212> PRT

<213> Homo sapiens

<400> 3698

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 50 55 60
 Tyr Ala Gly Lys Thr Cys Asn Gln Asp Leu Asn Glu Cys Gly Leu Lys
 65 70 75 80
 Pro Arg Pro Cys Lys His Arg Cys Met Asn Thr Tyr Gly Ser Tyr Lys
 85 90 95
 Cys Tyr Cys Leu Asn Gly Tyr Met Leu Met Pro Asp Gly Ser Cys Ser
 100 105 110
 Ser Ala Leu Thr Cys Ser Met Ala Asn Cys Gln Tyr Gly Cys Asp Val
 115 120 125
 Val Lys Gly Gln Ile Arg Cys Gln Cys Pro Ser Pro Gly Leu Gln Leu
 130 135 140
 Ala Pro Asp Gly Arg Thr Cys Val Asp Val Asp Glu Cys Ala Thr Gly
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 <212> DNA
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 35 40 45
 Arg Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln
 50 55 60
 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser
 65 70 75 80
 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu
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<213> Homo sapiens

<400> 3702

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	50				55					60					
Lys	His	Arg	Ile	Arg	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ser	Cys	Ser	Ala
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Cys	Gly	Lys	Cys	Phe	Gly	Gly	Ser	Gly	Asp	Leu	Arg	Arg	His	Val	Arg
			85					90					95		
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Ile	Cys	Asn	Lys	Cys
			100					105					110		
Phe	Thr	Arg	Ser	Ala	Val	Leu	Arg	Arg	His	Lys	Lys	Met	His	Cys	Lys
	115				120					125					
Ala	Gly	Asp	Glu	Ser	Pro	Asp	Val	Leu	Glu	Glu	Leu	Ser	Gln	Ala	Ile
	130				135					140					
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Tyr	Cys	Lys	Leu	Arg	Ser	Met	Ile	Gln	Pro	His	Gly	Val	Ser	Asp	Gln		
		195					200					205					
Glu	Lys	Leu	Ser	Leu	Asp	Pro	Gly	Lys	Leu	Ala	Lys	Pro	Gln	Ile	His		
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<210> 3703

<211> 3294

<212> DNA

<213> Homo sapiens

<400> 3703

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<211> 619

<212> PRT

<213> Homo sapiens

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Leu	His	Leu	Leu	Lys	Ser	Ser	Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile
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Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
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Pro	Gly	Pro	Leu	Ala	Pro	Ile	Pro	Pro	Thr	Leu	Leu	Ala	Pro	Gly	Thr
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Gln	Gln	Ile	Leu	Thr	Ser	Arg	Glu	Val	Leu	Pro	Gly	Ala	Lys	Cys	Asp
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					245					250						255	
Phe	Gly	Arg	Asn	Tyr	Ser	Leu	Ser	Val	Tyr	Leu	Val	Arg	Gln	Leu	Thr		
			260					265					270				
Ala	Gly	Thr	Leu	Leu	Gln	Lys	Leu	Arg	Ala	Lys	Gly	Ile	Arg	Asn	Pro		
			275				280					285					
Asp	His	Ser	Arg	Ala	Leu	Ile	Lys	Glu	Lys	Leu	Thr	Ala	Asp	Pro	Asp		
			290			295					300						
Ser	Glu	Val	Ala	Thr	Thr	Ser	Leu	Arg	Val	Ser	Leu	Met	Cys	Pro	Leu		
305					310					315					320		
Gly	Lys	Met	Arg	Leu	Thr	Val	Pro	Cys	Arg	Ala	Leu	Thr	Cys	Ala	His		
			325					330					335				
Leu	Gln	Ser	Phe	Asp	Ala	Ala	Leu	Tyr	Leu	Gln	Met	Asn	Glu	Lys	Lys		
			340					345					350				
Pro	Thr	Trp	Thr	Cys	Pro	Val	Cys	Asp	Lys	Lys	Ala	Pro	Tyr	Glu	Ser		
			355			360						365					
Leu	Ile	Ile	Asp	Gly	Leu	Phe	Met	Glu	Ile	Leu	Ser	Ser	Cys	Ser	Asp		
			370		375					380							
Cys	Asp	Glu	Ile	Gln	Phe	Met	Glu	Asp	Gly	Ser	Trp	Cys	Pro	Met	Lys		
385				390					395					400			
Pro	Lys	Lys	Glu	Ala	Ser	Glu	Val	Cys	Pro	Pro	Pro	Gly	Tyr	Gly	Leu		
			405					410					415				
Asp	Gly	Leu	Gln	Tyr	Ser	Pro	Val	Gln	Gly	Gly	Asp	Pro	Ser	Glu	Asn		
			420					425				430					
Lys	Lys	Lys	Val	Glu	Val	Ile	Asp	Leu	Thr	Ile	Glu	Ser	Ser	Ser	Asp		
			435			440					445						
Glu	Glu	Asp	Leu	Pro	Pro	Thr	Lys	Lys	His	Cys	Ser	Val	Thr	Ser	Ala		
			450			455				460							
Ala	Ile	Pro	Ala	Leu	Pro	Gly	Ser	Lys	Gly	Val	Leu	Thr	Ser	Gly	His		
465				470					475					480			
Gln	Pro	Ser	Ser	Val	Leu	Arg	Ser	Pro	Ala	Met	Gly	Thr	Leu	Gly	Gly		
			485					490					495				
Asp	Phe	Leu	Ser	Ser	Leu	Pro	Leu	His	Glu	Tyr	Pro	Pro	Ala	Phe	Pro		
			500					505				510					
Leu	Gly	Ala	Asp	Ile	Gln	Gly	Leu	Asp	Leu	Phe	Ser	Phe	Leu	Gln	Thr		
			515			520						525					
Glu	Ser	Gln	His	Tyr	Gly	Pro	Ser	Val	Ile	Thr	Ser	Leu	Asp	Glu	Gln		
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<210> 3705

<211> 1737

<212> DNA

<213> Homo sapiens

<400> 3705

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<210> 3706

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3706

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			20					25					30		
Ser	Arg	Gln	Gly	Gln	Gly	Thr	Glu	Ala	Gly	Met	Glu	Ala	Gly	Thr	Glu
		35				40						45			
Ala	Gly	Thr	Glu	Ala	Gly	Arg	Val	Gly	Gly	Val	Thr	Val	Glu	Gln	Gly
	50				55					60					
Lys	Ser	Leu	Ile	Asn	Tyr	Glu	Pro	His	Gly	Thr	Arg	Thr	Ala	Gly	Phe
65				70					75					80	
Thr	Ala	His	Pro	Pro	Lys	Ser	Thr	Ser	Val	Cys	Val	Cys	Xaa	Arg	Gln
			85					90						95	
His	Ile	Cys	Thr	Cys	Val	Cys	Met	Cys	Val	Arg	Lys	Cys	Val	Pro	Arg
			100					105					110		
Gln	His	Ile	Cys	Met	Cys	Ala	Cys	Val	Cys	Ile	Arg	Thr	Ala	Ile	Cys
		115					120					125			
Thr	Cys	Val	His	Val	Gln	Thr	Ala	Tyr	Leu	Cys	Thr	Cys	Val	Cys	Pro
	130					135					140				
Gly	Asn	Ile	Cys	Thr	Cys	Val	Ser	Val	Glu	Ala	Ala	Leu	Ser	Val	Cys
145					150				155					160	
Val	Ser	Arg	Ser	Ile	Ser	Ala	Cys	Val	Cys	Val	Ser	Xaa	Thr	Ala	Tyr
			165					170					175		
Leu	Cys	Met	Arg	Val	Cys	Val	Arg	Thr	Ala	Val	Cys	Val	Cys	Val	
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<210> 3707

<211> 585

<212> DNA

<213> Homo sapiens

<400> 3707

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 180
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 240
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 300

atgataaaaa ccctcaagaa actgggtata gaaggaatgt atctcaacgt aataaaagcc
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 420
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<210> 3708

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3708

Asp	Phe	Thr	Trp	Leu	Gln	His	Val	Leu	Ala	Ile	Asn	Val	Ile	His	Tyr
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Ile	Gln	Gln	Lys	Glu	Arg	Thr	Lys	Ile	Trp	Gly	Ile	Ser	Leu	Asp	Ala
		20					25					30			
Glu	Asn	Ala	Phe	Asp	Asn	Ile	Gln	Leu	Pro	Tyr	Met	Ile	Lys	Thr	Leu
		35				40					45				
Lys	Lys	Leu	Gly	Ile	Glu	Gly	Met	Tyr	Leu	Asn	Val	Ile	Lys	Ala	Val
	50					55				60					
Tyr	Asp	Arg	Pro	Xaa	Val	Ser	Ile	Ile	Leu	Asn	Gly	Glu	Asn	Leu	Gln
65					70				75					80	
Glu	Leu	Gln	Thr	Phe	Gly	Leu	Arg	Ser	Gly	Thr	Gln	Gln	Gly	Cys	Pro
			85					90						95	
Leu	Ser	Pro	Gln	Leu	Leu	Asn	Ile	Val	Leu						
			100					105							

<210> 3709

<211> 3768

<212> DNA

<213> Homo sapiens

<400> 3709

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 360
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 420
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3768

<210> 3710
<211> 70
<212> PRT
<213> Homo sapiens

<400> 3710
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Cys Asp Val Ile Leu Val Ala Gly Asp Arg Arg Ile Pro Ala His Arg
35 40 45
Leu Val Leu Ser Ser Val Ser Asp Tyr Phe Ala Ala Met Phe Thr Asn
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<210> 3711
<211> 1366
<212> DNA
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<400> 3711
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<210> 3712

<211> 368

<212> PRT

<213> Homo sapiens

<400> 3712

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			20					25					30		
Leu	Gly	Arg	Gly	Phe	Asn	Thr	Gly	Val	Ile	Leu	Leu	Arg	Leu	Asp	Arg
		35					40					45			
Leu	Arg	Gln	Ala	Gly	Trp	Glu	Gln	Met	Trp	Arg	Leu	Thr	Ala	Arg	Arg
	50					55					60				
Glu	Leu	Leu	Ser	Leu	Pro	Ala	Ala	Ser	Leu	Ala	Asp	Gln	Asp	Ile	Phe
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Asn	Ala	Val	Ile	Lys	Glu	His	Pro	Gly	Leu	Val	Gln	Arg	Leu	Pro	Cys
				85					90					95	
Val	Trp	Asn	Val	Gln	Leu	Ser	Asp	His	Thr	Leu	Ala	Glu	Arg	Cys	Tyr
			100					105					110		
Ser	Glu	Ala	Ser	Asp	Leu	Lys	Val	Ile	His	Trp	Asn	Ser	Pro	Lys	Lys
		115					120					125			
Leu	Arg	Val	Lys	Asn	Lys	His	Val	Glu	Phe	Phe	Arg	Asn	Phe	Tyr	Leu
	130					135					140				
Thr	Phe	Leu	Glu	Tyr	Asp	Gly	Asn	Leu	Leu	Arg	Arg	Glu	Leu	Phe	Val
145					150					155					160
Cys	Pro	Ser	Gln	Pro	Pro	Pro	Gly	Ala	Glu	Gln	Leu	Gln	Gln	Ala	Leu
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Arg	Leu	Gln	Met	Leu	Glu	Ala	Leu	Cys	Arg	His	Trp	Pro	Gly	Pro	Met

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				245					250					255	
Phe	Val	Glu	Ala	Ser	Pro	Val	Leu	Ala	Ala	Arg	Gln	Asp	Val	Ala	Tyr
			260					265					270		
His	Val	Val	Tyr	Arg	Glu	Gly	Pro	Leu	Tyr	Pro	Val	Asn	Gln	Leu	Arg
		275					280					285			
Asn	Val	Ala	Leu	Ala	Gln	Ala	Leu	Thr	Pro	Tyr	Val	Phe	Leu	Ser	Asp
	290					295					300				
Ile	Asp	Phe	Leu	Pro	Ala	Tyr	Ser	Leu	Tyr	Asp	Tyr	Leu	Arg	Ala	Ser
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Ile	Glu	Gln	Leu	Gly	Leu	Gly	Ser	Arg	Arg	Lys	Ala	Ala	Leu	Val	Val
			325					330					335		
Pro	Ala	Phe	Glu	Thr	Leu	Arg	Tyr	Arg	Phe	Ser	Phe	Pro	His	Ser	Lys
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<210> 3713

<211> 1719

<212> DNA

<213> Homo sapiens

<400> 3713

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<211> 488

<212> PRT

<213> Homo sapiens

<400> 3714

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Thr	Pro	Val	Gln	Asp	Glu	Arg	Asp	Ser	Gly	Ser	Asp	Gly	Glu	Asp	Asp
			20					25					30		
Val	Asn	Glu	Gln	His	Ser	Gly	Ser	Asp	Thr	Gly	Ser	Val	Glu	Arg	His
			35					40					45		
Ser	Glu	Asn	Glu	Thr	Ser	Asp	Arg	Glu	Asp	Gly	Pro	Pro	Lys	Gly	His
			50					55					60		
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65					70					75				80	
Asp	Ser	Glu	Ser	Glu	Glu	Leu	His	Arg	Gln	Lys	Asp	Ser	Asp	Ser	Glu
				85					90					95	
Ser	Glu	Glu	Arg	Ala	Glu	Pro	Pro	Ala	Ser	Asp	Ser	Glu	Asn	Glu	Asp
			100					105					110		
Val	Asn	Gln	His	Gly	Ser	Asp	Ser	Glu	Ser	Glu	Glu	Thr	Arg	Lys	Leu
			115					120					125		
Pro	Gly	Ser	Asp	Ser	Glu	Asn	Glu	Glu	Leu	Leu	Asn	Gly	His	Ala	Ser
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Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
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225          230          235          240
Glu Leu Pro Lys Pro Arg Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro
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Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
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Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro Arg Asn Gln Ala Ser Asp
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Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
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Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
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<211> 288

<212> DNA

<213> Homo sapiens

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120

cacttgagga aacatcgaaa ggacaaagcc cacaaacgct atctgcta atgagcattgac
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<212> PRT

<213> Homo sapiens

<400> 3716

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Arg	Val	Lys	Asp	Thr	Thr	Ser	Leu	Glu	Ala	Arg	Ile	Ile	Ala	Leu	Ser
			20					25					30		
Gly	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu	Lys	His	Arg	Lys	Asp
		35					40					45			
Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile	Asp	Gln	Arg	Lys	Lys
	50					55				60					
Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp	Val	Phe	Glu	Lys	Ile
65				70					75				80		
Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro	Pro	Leu	Tyr	Tyr	Arg
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
	35						40				45				
His	Leu	Ile	Leu	Asp	Ser	Ser	Ser	Lys	Ile	Cys	Asp	Leu	Asn	Ala	Asn
	50					55				60					
Thr	Glu	Ser	Glu	Val	Pro	Gly	Gly	Gln	Ser	Val	Gly	Val	Gln	Gly	Glu
65				70				75					80		
Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
		85						90				95			
Gly	Asp	Lys	Trp	Glu	Glu	Pro	Phe	Pro	Ala	Phe	Lys	Ser	Trp	Gln	Glu
	100					105					110				
Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
	115					120					125				
Asn	His	His	Pro	Leu	Glu	Glu	Asp	Cys	Pro	Pro	Val	Leu	Ser	His	Arg

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 Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln
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 245 250 255
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 Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys
 275 280 285
 Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg
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 Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser
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<211> 422

<212> DNA

<213> Homo sapiens

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 35 40 45
 Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala
 50 55 60
 Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Leu Val Val Leu His
 65 70 75 80
 Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr
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 4620
 catcttgctt ttgccttata taaagcctac agttatggaa gtgtggaaaa ctgtggcttc
 4680
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<210> 3722

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 3722

Ser	Glu	Lys	Glu	Lys	Glu	Glu	Leu	Glu	Arg	Leu	Gln	Lys	Glu	Glu	Glu
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Glu	Arg	Lys	Lys	Arg	Leu	Gln	Leu	Tyr	Val	Phe	Val	Met	Arg	Cys	Ile
			20					25				30			
Ala	Tyr	Pro	Phe	Asn	Ala	Lys	Gln	Pro	Thr	Asp	Met	Ala	Arg	Arg	Gln
		35					40					45			
Gln	Lys	Ile	Ser	Lys	Gln	Gln	Leu	Gln	Thr	Val	Lys	Asp	Arg	Phe	Gln
		50				55					60				
Ala	Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Met	Ala	Asp	Glu	Ala	Phe	Met
65					70				75					80	
Asn	Ala	Val	Gln	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
				85					90					95	
Ala	Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Ser	Arg	Glu
			100					105					110		
Val	Phe	Lys	Lys	His	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile
		115					120					125			
Asp	Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Met	Ala	Lys	Phe
	130					135						140			
Asp	Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Pro	Arg	Lys	Gln	Gln	Ala	Arg
145					150					155				160	
Met	Thr	Ala	Ser	Ala	Ala	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu

[illegible]

595 600 605
 Gly Trp Phe Ser Pro Gly Gln Val Phe Val Leu Asp Glu Tyr Cys Ala
 610 615 620
 Arg Asn Gly Val Arg Gly Cys His Arg His Leu Cys Tyr Leu Arg Asp
 625 630 635 640
 Leu Leu Glu Arg Ala Glu Asn Gly Ala Met Ile Asp Pro Thr Leu Leu
 645 650 655
 His Tyr Ser Phe Ala Phe Cys Ala Ser His Val His Gly Asn Arg Pro
 660 665 670
 Asp Gly Ile Gly Thr Val Thr Val Glu Glu Lys Glu Arg Phe Glu Glu
 675 680 685
 Ile Lys Glu Arg Leu Arg Val Leu Leu Glu Asn Gln Ile Thr His Phe
 690 695 700
 Arg Tyr Cys Phe Pro Phe Gly Arg Pro Glu Gly Ala Leu Lys Ala Thr
 705 710 715 720
 Leu Ser Leu Leu Glu Arg Val Leu Met Lys Asp Ile Val Thr Pro Val
 725 730 735
 Pro Gln Glu Glu Val Lys Thr Val Ile Arg Lys Cys Leu Glu Gln Ala
 740 745 750
 Ala Leu Val Asn Tyr Ser Arg Leu Ser Glu Tyr Ala Lys Ile Glu Glu
 755 760 765
 Asn Gln Lys Asp Ala Glu Asn Val Gly Arg Leu Ile Thr Pro Ala Lys
 770 775 780
 Lys Leu Glu Asp Thr Ile Arg Leu Ala Glu Leu Val Ile Glu Val Leu
 785 790 795 800
 Gln Gln Asn Glu Glu His His Ala Glu Pro His Val Asp Lys Gly Glu
 805 810 815
 Ala Phe Ala Trp Trp Ser Asp Leu Met Val Glu His Ala Glu Thr Phe
 820 825 830
 Leu Ser Leu Phe Ala Val Asp Met Asp Ala Ala Leu Glu Val Gln Pro
 835 840 845
 Pro Asp Thr Trp Asp Ser Phe Pro Leu Phe Gln Leu Leu Asn Asp Phe
 850 855 860
 Leu Arg Thr Asp Tyr Asn Leu Cys Asn Gly Lys Phe His Lys His Leu
 865 870 875 880
 Gln Asp Leu Phe Ala Pro Leu Val Val Arg Tyr Val Asp Leu Met Glu
 885 890 895
 Ser Ser Ile Ala Gln Ser Ile His Arg Gly Phe Glu Arg Glu Ser Trp
 900 905 910
 Glu Pro Val Asn Asn Gly Ser Gly Thr Ser Glu Asp Leu Phe Trp Lys
 915 920 925
 Leu Asp Ala Leu Gln Thr Phe Ile Arg Asp Leu His Trp Pro Glu Glu
 930 935 940
 Glu Phe Gly Lys His Leu Glu Gln Arg Leu Lys Leu Met Ala Ser Asp
 945 950 955 960
 Met Ile Glu Ser Cys Val Lys Arg Thr Arg Ile Ala Phe Glu Val Lys
 965 970 975
 Leu Gln Lys Thr Ser Arg Ser Thr Asp Phe Arg Val Pro Gln Ser Ile
 980 985 990
 Cys Thr Met Phe Asn Val Met Val Asp Ala Lys Ala Gln Ser Thr Lys
 995 1000 1005
 Leu Cys Ser Met Glu Met Gly Gln Glu Phe Ala Lys Met Trp His Gln
 1010 1015 1020
 Tyr His Ser Lys Ile Asp Glu Leu Ile Glu Glu Thr Val Lys Glu Met

1025 1030 1035 1040
 Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu
 1045 1050 1055
 Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu
 1060 1065 1070
 Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro
 1075 1080 1085
 Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln
 1090 1095 1100
 Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu
 1105 1110 1115 1120
 Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu
 1125 1130 1135
 Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu
 1140 1145 1150
 Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val
 1155 1160 1165
 Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg
 1170 1175 1180
 Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Gly Leu
 1185 1190 1195 1200
 Gln Gly Ile Ser Met Lys Asp Ser Asp Glu Glu Asp Glu Glu Asp Asp
 1205 1210 1215

<210> 3723

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3723

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 120
 aaccccaacg agaagctgaa ggtgaacttt gggaccccag agttcctgtc acctgaggtg
 180
 gtgaattatg accaaatctc cgataagaca gacatgtgga gtatgggggt gatcacctac
 240
 atgctgctga ggggcctctc ccccttctctg ggagatgatg acacagagac cctaaacaac
 300
 gttctatctg gcaactggta ctttgatgaa gagacctttg aggccgtatc agacgaggcc
 360
 aaagactttg tctccaacct catcgtcaag gaccagaggg cccggatgaa cgctgcccag
 420
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 480
 ctttaagtccc agatcttgct taagaaatac ctcatgaaga ggcgctggaa gaaaaacttc
 540
 attgctgtca gcgtgccaa ccgcttcaag aagatcagca gctcgggggc actgatggct
 600
 ctgggggtct gagccctggg cgcagctgaa gcctggacgc agccacacag tggccggggc
 660
 tgaagccaca cagcccagaa ggccagaaaa ggcagccaga tccccagggc agcctcgtaa
 720

ggacaaggct gtgccaggct gggaggctcg gggctcccca cgcccccatg cagtgaccgc
 780
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 830

<210> 3724
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 3724
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 20 25 30
 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val
 35 40 45
 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp
 50 55 60
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr
 65 70 75 80
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Asp Thr Glu
 85 90 95
 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr
 100 105 110
 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile
 115 120 125
 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His
 130 135 140
 Pro Trp Leu Asn Asn Leu Ala Glu Lys Ala Lys Arg Cys Asn Arg Arg
 145 150 155 160
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp
 165 170 175
 Lys Lys Asn Phe Ile Ala Val Ser Ala Ala Asn Arg Phe Lys Lys Ile
 180 185 190
 Ser Ser Ser Gly Ala Leu Met Ala Leu Gly Val
 195 200

<210> 3725
 <211> 1244
 <212> DNA
 <213> Homo sapiens

<400> 3725
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 120
 gaccatcttc acttttgttt tcaggccttt aaaattgtgc cctacaacac agagaccctt
 180
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt
 240
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc
 300

accctgttgc attttgctgc gaagtatgga ctgaagaacc tcaactgcctt gttgctcacc
 360
 tgcccaggag ccctgcaggc gtacagcgtg gccacaagc atggccacta cccaacacc
 420
 atcgctgaga aacacggctt cagggacctg cggcagttca tcgacgagta tgtggaaacg
 480
 gtggacatgc tcaagagtca cattaagag gaactgatgc acggggagga ggctgatgct
 540
 gtgtacgagt ccatggccca cctttccaca gacctgctta tgaaatgctc gctcaacccc
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 ggctgtgacg aggatctcta tgagtccatg gctgcctttg tcccagctgc cactgaagac
 660
 ctctatgttg aaatgcttca ggccagtaca tctaaccxaa tccctggaga tggtttctct
 720
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 780
 aatctggaga gagatcagtg ccatcttggt caggaagaag atgtttatca cacggtggat
 840
 gacgatgagg ccttttctgt ggacttgccc agcaggcccc ctgtcccagt gccagacca
 900
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 960
 aagtatggca gggaatgatg tccaactggt tctttggagc ttctcaacag ggatttcctg
 1020
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 1140
 gaccagagtc agtgctggcc ttcttggaag tatttacgca cagttgcaaa ggcaggtaaa
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 1244

<210> 3726

<211> 325

<212> PRT

<213> Homo sapiens

<400> 3726

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 20 25 30
 Gly Arg Glu Leu Asp Phe Arg Ser Asp His Leu His Phe Cys Phe Gln
 35 40 45
 Ala Phe Lys Ile Val Pro Tyr Asn Thr Glu Thr Leu Asp Lys Leu Leu
 50 55 60
 Thr Glu Ser Leu Lys Asn Asn Ile Pro Ala Ser Gly Leu His Leu Phe
 65 70 75 80
 Gly Ile Asn Gln Leu Glu Glu Glu Asp Met Met Thr Asn Gln Arg Asp
 85 90 95
 Glu Glu Leu Pro Thr Leu Leu His Phe Ala Ala Lys Tyr Gly Leu Lys
 100 105 110
 Asn Leu Thr Ala Leu Leu Leu Thr Cys Pro Gly Ala Leu Gln Ala Tyr

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      115              120              125
Ser Val Ala Asn Lys His Gly His Tyr Pro Asn Thr Ile Ala Glu Lys
      130              135              140
His Gly Phe Arg Asp Leu Arg Gln Phe Ile Asp Glu Tyr Val Glu Thr
      145              150              155              160
Val Asp Met Leu Lys Ser His Ile Lys Glu Glu Leu Met His Gly Glu
      165              170              175
Glu Ala Asp Ala Val Tyr Glu Ser Met Ala His Leu Ser Thr Asp Leu
      180              185              190
Leu Met Lys Cys Ser Leu Asn Pro Gly Cys Asp Glu Asp Leu Tyr Glu
      195              200              205
Ser Met Ala Ala Phe Val Pro Ala Ala Thr Glu Asp Leu Tyr Val Glu
      210              215              220
Met Leu Gln Ala Ser Thr Ser Asn Pro Ile Pro Gly Asp Gly Phe Ser
      225              230              235              240
Arg Ala Thr Lys Asp Ser Met Ile Arg Lys Phe Leu Glu Gly Asn Ser
      245              250              255
Met Gly Met Thr Asn Leu Glu Arg Asp Gln Cys His Leu Gly Gln Glu
      260              265              270
Glu Asp Val Tyr His Thr Val Asp Asp Asp Glu Ala Phe Ser Val Asp
      275              280              285
Leu Ala Ser Arg Pro Pro Val Pro Val Pro Arg Pro Glu Thr Thr Ala
      290              295              300
Pro Gly Ala His Gln Leu Pro Asp Asn Glu Pro Tyr Ile Phe Lys Gly
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Lys Tyr Gly Arg Glu
      325

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<210> 3727

<211> 630

<212> DNA

<213> Homo sapiens

<400> 3727

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120
ctcgaccccg ctgagaaaca agaaacaggc tgtcctcctt tgggtctgga gtccctgcga
180
gtttcagata gccggcttga ggcattccagc agccagtcct ttggtcttgg accacaccga
240
ggacgggtca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctgggtgt
300
gctgaggagc aggaagccga tccatgggtt cagggtggacg ctgggcaccc caccgcttc
360
tcgggtgtta tcacacaggg caggaactct gtctggaggt atgactgggt cacatcatac
420
aaggtccagt tcagcaatga cagtcggacc tgggtgggaa gtaggaacca cagcagtggg
480
atggacgcag tatttcctgc caattcagac ccagaaactc cagtgtctgaa cctcctgccg
540
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600

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ccttgccctcc gggcagagat cctggcctgc
630

<210> 3728

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3728

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Lys	Leu	Thr	Leu	Thr	Arg	Pro	Thr	Pro	Leu	Val	Thr	Ala	Gly	Pro	Leu
			20					25					30		
Val	Thr	Pro	Thr	Pro	Ala	Gly	Thr	Leu	Asp	Pro	Ala	Glu	Lys	Gln	Glu
	35						40					45			
Thr	Gly	Cys	Pro	Pro	Leu	Gly	Leu	Glu	Ser	Leu	Arg	Val	Ser	Asp	Ser
	50					55					60				
Arg	Leu	Glu	Ala	Ser	Ser	Ser	Gln	Ser	Phe	Gly	Leu	Gly	Pro	His	Arg
65				70					75					80	
Gly	Arg	Leu	Asn	Ile	Gln	Ser	Gly	Leu	Glu	Asp	Gly	Asp	Leu	Tyr	Asp
			85					90					95		
Gly	Ala	Trp	Cys	Ala	Glu	Glu	Gln	Asp	Ala	Asp	Pro	Trp	Phe	Gln	Val
			100					105					110		
Asp	Ala	Gly	His	Pro	Thr	Arg	Phe	Ser	Gly	Val	Ile	Thr	Gln	Gly	Arg
	115						120					125			
Asn	Ser	Val	Trp	Arg	Tyr	Asp	Trp	Val	Thr	Ser	Tyr	Lys	Val	Gln	Phe
	130					135					140				
Ser	Asn	Asp	Ser	Arg	Thr	Trp	Trp	Gly	Ser	Arg	Asn	His	Ser	Ser	Gly
145				150					155					160	
Met	Asp	Ala	Val	Phe	Pro	Ala	Asn	Ser	Asp	Pro	Glu	Thr	Pro	Val	Leu
			165					170					175		
Asn	Leu	Leu	Pro	Glu	Pro	Gln	Val	Ala	Arg	Phe	Ile	Arg	Leu	Leu	Pro
			180					185					190		
Gln	Thr	Trp	Leu	Gln	Gly	Gly	Ala	Pro	Cys	Leu	Arg	Ala	Glu	Ile	Leu
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Ala	Cys														
	210														

<210> 3729

<211> 1552

<212> DNA

<213> Homo sapiens

<400> 3729

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120
atcaagttat cagcagatgt caaaccattt gtccccagat ttgccgggct caatgtggca
180
tggttagagt cctcagaagc atgtgtcttc cccagctctg cagccacata ctatccgttt
240
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttggagct
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct
 360
 ccttataccc ttgactccac acagaatggt tactcagtgc ctggctccca gtatctttat
 420
 aaccaaccca gttgttaccg aggttttcaa acagtgaagc atcgaaatga gaacacatgc
 480
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 540
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 600
 tcagctagag gttcacatca tttgtccatt tacgctgaga atagtgtgaa atcagatggt
 660
 taccataagc gaacagacag gaaatccaga atcattgcaa aaaatgtatc tacctccaaa
 720
 cctgagtttg aatttaccac actggacttt cctgaactgc aagggtgcaga gaacaatatg
 780
 tcagagatac agaagcaacc caagtgggga cctgtccact ctgtctctac cgacatttct
 840
 cttctaagag aagtagtaaa accagctgca gtgttatcaa aggggtgaaat agtgggtgaaa
 900
 aataacccaa atgaatctgt aactgcta at gccgtacca attctccttc atgtacaaga
 960
 gagttatctt ggacaccaat ggggttatgtt gttcgacaga cattatctac agaactgtca
 1020
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 1080
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 1140
 gaaaaacaca ttattcatcc taccacaaaag tctaaagcat cacaaggtag tgaccttgaa
 1200
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 1260
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 1320
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 1380
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 1440
 ggcattgctga cagccctgga gaagaagcag cactctcagc atgcaaagca gtcctccaaa
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<210> 3730

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3730

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Ile	Thr	Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr
		20						25				30			
Gln	Asn	Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro

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      35              40              45
Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg Asn Glu Asn Thr
  50              55              60
Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr
  65              70              75              80
Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala
      85              90              95
Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His
      100              105              110
Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys
      115              120              125
Arg Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Asn Val Ser Thr Ser
      130              135              140
Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro Glu Leu Gln Gly
      145              150              155              160
Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro Lys Trp Gly Pro
      165              170              175
Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg Glu Val Val Lys
      180              185              190
Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val Lys Asn Asn Pro
      195              200              205
Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser Pro Ser Cys Thr
      210              215              220
Arg Glu Leu Ser Trp Thr Pro Met Gly Tyr Val Val Arg Gln Thr Leu
      225              230              235              240
Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr Ser Met Ile Asn
      245              250              255
Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn Val Ser Ile Pro
      260              265              270
Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn Lys Glu Lys His
      275              280              285
Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln Gly Ser Asp Leu
      290              295              300
Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys Glu Lys Ser
      305              310              315              320
Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro Pro Arg Ile Glu
      325              330              335
Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser Glu Arg Arg Asp
      340              345              350
Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln Pro Gln Asp Asn
      355              360              365
Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val Gln Leu Asp Leu
      370              375              380
Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His Ser Gln His Ala
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Lys Gln Ser Ser Lys Pro Val Val Val Ser Val Gly Ala Val Pro Val
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Leu Ser Lys Glu Cys Ala
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<210> 3731

<211> 1704

<212> DNA

<213> Homo sapiens

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180
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240
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360
atggctcctc tgctgtttta tggctgccgc tctggggaaa tctttgccat tgatctgcgt
420
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480
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540
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600
tacgcctacc tgccctgca tgtgcacgag gaagaaggaa tcctggtggc agtgggccag
660
gactgctaca cgagaatctg gagcctccac gatgcccgc tactgagaac cataccctcc
720
ccgtaccctg cctccaaggc cgacattccc agtgtggcct tctcgtcgcg gctggggggc
780
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840
agctaattct gcagggcaca gccagagcc atgtggattt gacttacggg agtaaagcgt
900
aactttttac tgcattctaat gaggggtgtt taagtgcac tcagtgtaca cagatcccat
960
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ttgagttaaa ttgctggctg agagagcttg gaagtccttt tcataaaagg tacctctttc
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1140
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1440
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1560

attcaagggc ccgcgctcaa aggaaattgg ttttgacttt ttgtaatcta ggagcgacag
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<210> 3732

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3732

Tyr	Val	Leu	Arg	Asn	Leu	Tyr	Val	Pro	Asn	Arg	Lys	Val	Lys	Ser	Leu
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			20					25					30		
Glu	Gly	Ile	Thr	Asp	Ala	Ser	Ser	Cys	Ala	Val	Leu	Leu	Pro	Ala	Ser
		35					40					45			
Leu	Phe	Val	Asn	Ser	His	Pro	Gly	Ile	Asp	Arg	Pro	Gly	Met	Leu	Cys
	50					55				60					
Ser	Phe	Arg	Ile	Pro	Gly	Ala	Trp	Ser	Cys	Ala	Trp	Ser	Leu	Asn	Ile
65					70					75				80	
Gln	Ala	Asn	Asn	Cys	Phe	Ser	Thr	Gly	Leu	Ser	Arg	Arg	Val	Leu	Leu
			85					90						95	
Thr	Asn	Val	Val	Thr	Gly	His	Arg	Gln	Ser	Phe	Gly	Thr	Asn	Ser	Asp
			100					105					110		
Val	Leu	Ala	Gln	Gln	Phe	Ala	Leu	Met	Ala	Pro	Leu	Leu	Phe	Asn	Gly
		115					120					125			
Cys	Arg	Ser	Gly	Glu	Ile	Phe	Ala	Ile	Asp	Leu	Arg	Cys	Gly	Asn	Gln
	130					135				140					
Gly	Lys	Gly	Trp	Lys	Ala	Thr	Arg	Leu	Phe	His	Asp	Ser	Ala	Val	Thr
145					150					155				160	
Ser	Val	Arg	Ile	Leu	Gln	Asp	Glu	Gln	Tyr	Leu	Met	Ala	Ser	Asp	Met
			165					170						175	
Ala	Gly	Lys	Ile	Lys	Leu	Trp	Asp	Leu	Arg	Thr	Thr	Lys	Cys	Val	Arg
		180						185					190		
Gln	Tyr	Glu	Gly	His	Val	Asn	Glu	Tyr	Ala	Tyr	Leu	Pro	Leu	His	Val
	195					200						205			
His	Glu	Glu	Glu	Gly	Ile	Leu	Val	Ala	Val	Gly	Gln	Asp	Cys	Tyr	Thr
	210					215				220					
Arg	Ile	Trp	Ser	Leu	His	Asp	Ala	Arg	Leu	Leu	Arg	Thr	Ile	Pro	Ser
225					230					235				240	
Pro	Tyr	Pro	Ala	Ser	Lys	Ala	Asp	Ile	Pro	Ser	Val	Ala	Phe	Ser	Ser
			245					250					255		
Arg	Leu	Gly	Gly	Ser	Arg	Gly	Ala	Pro	Gly	Leu	Leu	Met	Ala	Val	Gly
		260					265					270			
Gln	Asp	Leu	Tyr	Cys	Tyr	Ser	Tyr	Ser							
	275						280								

<210> 3733

<211> 515

<212> DNA

<213> Homo sapiens

<400> 3733

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 120
 tcctcagtgc gggagaggga gacgccggg gcangtccat gcctcccgcg gcgtggttg
 180
 tgcgtcccag gtgacgtcag aagcagcccg cccctgcctg gatggtgcgc cctgagtac
 240
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 300
 tggggccgcg gttctggggc ggcccagacc ccggtcctg cgccttcccc ttcctcaggc
 360
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<210> 3734

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3734

Xaa	Gly	Arg	Ala	Val	Arg	Arg	Val	Thr	Ala	Gly	Thr	Arg	Pro	Gly	Trp
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Val	Ser	Gly	Ser	Arg	Tyr	Arg	Arg	Gly	Arg	Arg	Arg	Gly	Arg	Leu	Lys
		20						25					30		
Gly	Lys	Asp	Pro	Gly	Ser	Ala	Pro	Ser	Ser	Val	Arg	Glu	Arg	Glu	Thr
		35					40					45			
Pro	Gly	Ala	Xaa	Pro	Cys	Leu	Pro	Arg	Arg	Gly	Trp	Cys	Val	Pro	Gly
	50					55					60				
Asp	Val	Arg	Ser	Ser	Pro	Pro	Leu	Pro	Gly	Trp	Cys	Ala	Leu	Ser	Asp
65					70					75				80	
Val	Arg	Ser	Arg	Gly	Arg	Ser	Cys	Pro	Ser	Ala	Pro	Lys	Ala	Ala	Gly
			85						90					95	
Gly	Leu	Arg	Ala	Trp	Gly	Arg	Gly	Ser	Gly	Ala	Ala	Arg	Ala	Pro	Ala
			100					105						110	
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Gly	Xaa	Ser	Pro	Ser	Ser	Arg	Thr	Pro
		115					120						125		
Arg	Asp	Trp	Ser	Ala	Ser	Arg	Cys	Trp	Thr	Trp	Ser	Gly	Ala	Ala	Thr
	130					135					140				
Ala	Pro	Thr	Pro	Phe	Ser	Pro	Ala	Gln	Gln	Pro	Pro	Ser	Ser	His	Asp
145					150					155				160	
Gly	Leu	Ser	Leu	Asp	Pro	Ser	Gln	Leu	Glu	Pro					
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<210> 3735

<211> 2512

<212> DNA

<213> Homo sapiens

<400> 3735

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120
tgatcactga acccatccct gacatccgaa accagtatcc agagcacata agcaacatca
180
tctccctcct ccaggacctt gtaagtgtct tccctgccag ctctgtgcag gaaacttcca
240
tgctggtttc cctcctgcc aacctcttta atgctctgag agcctctggg gttgacatag
300
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360
agaggcgaga gggcactttg agagtggata cctacactct agtgcagcct gaggcagaag
420
accatgttga gagctaccga accatgccca ttaccctac ctacaatgaa gtgcacttgg
480
atgagaggcc cttccttcgc cccaatatca tttctggaaa atacgacagc actgctatct
540
atctggatac ccacttccgg ctctgcgag aagatttcgt cagacctta cgggaaggta
600
ttttggaact tctccaaagc tttgaagacc agggcctgag gaagagaaag tttgatgaca
660
tccgaatcta ctttgacacc aggattatca ccccatgtg ttcacatca ggcatagtct
720
acaagggtgca gtttgacaca aaaccactga agtttgttcg ctggcagaat tccaaacgat
780
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840
ccgtatctaa caggagcag gaagatctct gccgaggaat tgtccagctc tgcttcaatg
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960
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1020
aagatgttcc cttccaggag aatatcgtgg agtgtaactc tcatgtgaag gagccaagg
1080
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1140
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1200
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1320
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1380
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1440
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1560

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 1680
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 1860
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 1920
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 1980
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 2040
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 2100
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 2160
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 2220
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 2280
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 2340
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 2400
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<210> 3736

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3736

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Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Lys	Met	Lys	Lys	Arg	Val
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
		35					40				45				
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
	50					55				60					
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
65					70					75				80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
				85					90					95	
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105						110	
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln

	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
	130				135						140				
Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
145					150					155					

<210> 3737
 <211> 1046
 <212> DNA
 <213> Homo sapiens

<400> 3737
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 120
 atccctgctg ccagccagcg catcttctctg cacggcaacc gcactctcgca tgtgccagct
 180
 gccagcttcc gtgcctgccg caacctcacc atcctgtggc tgcactcgaa tgtgctggcc
 240
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 300
 aatgcacagc tccggtctgt ggaccctgcc acattccacg gcctggggccg cctacacacg
 360
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 420
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 480
 cgcgacctgg gcaacctcac acacctcttc ctgcacggca accgcatctc cagcgtgccc
 540
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 660
 gccaacaatc tatcagcgtg gccactgag gccctggccc cctgcgctgc cctgcagtac
 720
 ctgaggctca acgacaacct ctgggtgtgt gactgccggg cagcccact ctgggcctgg
 780
 ctgcagaagt tccgcggctc ctccctccgag gtgcctgca gcctcccgca acgcctggct
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 900
 ccttaccatc ccatctggac cggcagggcc accgatgagg agccgctggg gcttcccaag
 960
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 1020
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 1046

<210> 3738
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 3738
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Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln
20 25 30
Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile
35 40 45
Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
50 55 60
Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
65 70 75 80
Arg Ile Asp Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
85 90 95
Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
100 105 110
His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
115 120 125
Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
130 135 140
Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
145 150 155 160
Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
165 170 175
Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
180 185 190
Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
195 200 205
Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
210 215 220
Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
225 230 235 240
Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
245 250 255
Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
260 265 270
Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
275 280 285
Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
290 295 300
Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
305 310 315 320
Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
325 330 335
Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg
340 345

<210> 3739

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 3739

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 120
 agtgaggagg gcctggagat gtcattcaa tgagcgggag gcacctctcc cttcccgtaa
 180
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 240
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 300
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 360
 agaatgttca tctctgcctt ctcgctggac aaagggccg ctgataccac catgctgacg
 420
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 480
 cagacttta ggatccttca ccacaaaaac aagggttcgag gtgcctcaac tcagagctga
 540
 aagcactgcc agtagctcag actctgataa gagtgaggta gattgtggcc agcgtgccag
 600
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 660
 aactttggat tcccaaccag taaatcttag caagatctga gtttctccag gtatgatatt
 720
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 780
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 900
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 960
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 1080
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 agccccgcgc tcgctcagaa gctcgggcag cctcgcgacc ctcacctacc cctcccaata
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<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

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Gly	Gln	Trp	Glu	Ser	Ala	Ala	Pro	Pro	Val	Trp	Arg	Pro	Arg	Ala	His
		20					25					30			
Ser	Thr	Glu	Ala	Pro	Gly	His	Pro	Gln	Glu	Asp	Gly	Lys	Gly	Gln	Leu
	35					40					45				
Ala	Gly	Glu	Ser	Pro	Gly	His	Arg	Glu	Pro	Ser	Pro	Gly	Ser	Lys	Gln

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      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100              105              110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115              120              125
Ile Ser Pro Leu Ser Gln Pro Pro Pro Ser Pro
      130              135

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<210> 3741

<211> 562

<212> DNA

<213> Homo sapiens

<400> 3741

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gtcgtgtcca ctgtggggat ccacgtcctg actaaccttg tgttcctaga aatccctcac
120
cggcagatcg gtgcctcctg aatccccaccc aaaattccca ctgggaatgt gttcctgaaa
180
gagctgcccc ggcttgagaa agcctctttt cagaccaaac ttcgtattca aagctcaaaa
240
agaactgcac acaattagga cagtcataca agatgctgcc cctaatactg ccacaatctg
300
cgagaagggga ggcgggggctt ccgagggcaa agtgcccctg ggaagggatc cgcagggaac
360
agctttgaaa ggaccacagc cccagccac gaggggagca agcacgagcc ggggagagag
420
ctctgcgctc gcacacggga ttcattctcg ccgcctctgc ccgtttccag caacacggag
480
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540
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562

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<210> 3742

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3742

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Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20              25              30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35              40              45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50              55              60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

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65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
      85              90              95
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
      100             105             110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
      115             120             125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
      130             135

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<210> 3743

<211> 468

<212> DNA

<213> Homo sapiens

<400> 3743

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120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaac
180
aaaagcatca gaattatctt ttcctatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagtctttga cggaacctcc agcaatgggc ctctgctagg gcaagtctgc
300
agtaaaaacg actatgttcc tgtatttgaa tcatcatcca gtacattgac gtttcaaata
360
gttactgact cagcaagaat tcaaagaact gtctttgtgt tctagtagtt cttatttcct
420
aacatcttta ttccaaagtg tggcgggttac ctggatccct ggaaggat
468

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<210> 3744

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3744

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      20             25             30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
      35             40             45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
      50             55             60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
      85             90             95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
      100            105            110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

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115
Arg Thr Val Phe Val Phe
130

120

125

<210> 3745
<211> 345
<212> DNA
<213> Homo sapiens

<400> 3745
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180
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345

<210> 3746
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3746
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Ser Pro Gly Arg Ser Leu Val Pro Cys Val Leu Val Leu Gly Thr Thr
35 40 45
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile
50 55 60
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys
65 70 75 80
Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly
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Arg His Val Trp Ala Asp
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<210> 3747
<211> 800
<212> DNA
<213> Homo sapiens

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120

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 480
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 800

<210> 3748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3748

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Asp	Thr	Gln	Asp	Arg	Ser	Leu	Glu	Asp	Gly	Leu	Asn	Arg	Glu	Leu	Arg
		20						25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp
		35				40						45			
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50					55					60				
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
	65				70					75				80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85						90					95	
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100						105					110		
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
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<210> 3749

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3749

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 180
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<210> 3750

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3750

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Trp	Ala	Ala	Ser	Pro	Gln	Gln	His	Glu	Trp	Pro	Pro	Leu	Leu	Gln	Leu
			20					25					30		
Arg	Pro	Glu	Asp	Val	Gly	Phe	Asp	Gly	Tyr	Ser	Met	Pro	Arg	Glu	Gly
		35				40					45				
Ser	Thr	Ser	Lys	Gln	Met	Pro	Pro	Ser	Asp	Ala	Glu	Gly	Asp	Pro	Leu
	50				55						60				
Met	Asn	Met	Leu	Met	Arg	Leu	Gln	Glu	Ala	Ala	Asn	Tyr	Ser	Ser	Pro
65					70				75					80	
Gln	Ser	Tyr	Asp	Ser	Asp	Ser	Asn	Ser	Asn	Ser	His	His	Asp	Asp	Ile
			85					90						95	
Leu	Asp	Ser	Ser	Leu	Glu	Ser	Thr	Leu							
			100					105							

<210> 3751

<211> 554

<212> DNA

<213> Homo sapiens

<400> 3751

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 120
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 180
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 cgctttcccc ttctctcgc cctgcggcag agagcgcaac ttctgcgct gcgaggaccg
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 554

<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

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Pro	His	His	Gly	Pro	Gly	Pro	Ala	Ala	Ala	Arg	Gly	Ser	Val	Ala	Pro
			20				25						30		
Ser	Gly	Ala	Lys	Gly	Val	Ser	Tyr	Thr	Gln	Gly	Gln	Ser	Pro	Glu	Pro
		35					40					45			
Arg	Thr	Arg	Glu	Val	Phe	Leu	Leu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Phe
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Pro	Gly														
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<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

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 120
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 180
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 360

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 420
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 720
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 780
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<210> 3754

<211> 261

<212> PRT

<213> Homo sapiens

<400> 3754

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			20					25					30		
Met	Asp	Cys	Arg	Val	His	Met	Arg	Pro	Ile	Gly	Leu	Thr	Trp	Val	Leu
		35					40					45			
Gln	Leu	Thr	Leu	Ala	Trp	Ile	Leu	Leu	Glu	Ala	Cys	Gly	Gly	Ser	Arg
	50					55					60				
Pro	Leu	Gln	Ala	Arg	Ser	Gln	Gln	His	His	Gly	Leu	Ala	Ala	Asp	Leu
65				70						75				80	
Gly	Lys	Gly	Lys	Leu	His	Leu	Ala	Gly	Pro	Cys	Cys	Pro	Ser	Glu	Met

85								90				95				
Asp	Thr	Thr	Glu	Thr	Ser	Gly	Pro	Gly	Asn	His	Pro	Glu	Arg	Cys	Gly	
			100						105				110			
Val	Pro	Ser	Pro	Glu	Cys	Glu	Ser	Phe	Leu	Glu	His	Leu	Gln	Arg	Ala	
		115					120					125				
Leu	Arg	Ser	Arg	Phe	Arg	Leu	Arg	Leu	Leu	Gly	Val	Arg	Gln	Ala	Gln	
		130				135					140					
Pro	Leu	Cys	Glu	Glu	Leu	Cys	Gln	Ala	Trp	Phe	Ala	Asn	Cys	Glu	Asp	
145					150					155					160	
Asp	Ile	Thr	Cys	Gly	Pro	Thr	Trp	Leu	Pro	Leu	Ser	Glu	Lys	Arg	Gly	
			165						170					175		
Cys	Glu	Pro	Ser	Cys	Leu	Thr	Tyr	Gly	Gln	Thr	Phe	Ala	Asp	Gly	Thr	
			180						185				190			
Asp	Leu	Cys	Arg	Ser	Ala	Leu	Gly	His	Ala	Leu	Pro	Val	Ala	Ala	Pro	
		195					200					205				
Gly	Ala	Arg	His	Cys	Phe	Asn	Ile	Ser	Ile	Ser	Ala	Val	Pro	Arg	Pro	
		210				215					220					
Arg	Pro	Gly	Arg	Arg	Gly	Arg	Glu	Ala	Pro	Ser	Arg	Arg	Ser	Arg	Ser	
225					230					235					240	
Pro	Arg	Thr	Ser	Ile	Leu	Asp	Ala	Ala	Gly	Ser	Gly	Ser	Gly	Ser	Gly	
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<210> 3755

<211> 3149

<212> DNA

<213> Homo sapiens

<400> 3755

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720

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<210> 3756

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3756

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		20						25					30		
Ser	Glu	Glu	Thr	Thr	Ser	Asp	Asn	Asn	Asn	Thr	Ser	Ile	Thr	Thr	Pro
		35					40					45			
Thr	Leu	Ser	Pro	Ser	Gln	Gln	Pro	Leu	Pro	Thr	Glu	Leu	Asn	Val	Thr
	50					55					60				
Ser	Pro	Ser	Lys	Glu	Glu	Cys	Gly	Pro	Cys	Thr	Asp	Thr	Ala	His	Val
65				70						75				80	
Ser	Leu	Ile	Thr	Pro	Thr	Lys	Arg	Ser	Cys	Gly	Thr	Asp	Ser	Gln	Ser
			85						90					95	
Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu	Asn	Thr
		100						105						110	
Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg	Arg	Arg
		115				120						125			
Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu	Leu	Gly
	130					135					140				
Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu	Pro	Glu

145											150						155						160
Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Arg	Gly	Arg	Glu	Glu	Ala								
					165						170						175						
Ile	Met	Lys	Met	Val	Lys	Leu	Asp	Arg	Lys	Val	Gly	Arg	Ser	Cys	Gln								
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<210> 3757
<211> 1046
<212> DNA
<213> Homo sapiens
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<210> 3758
<211> 199
<212> PRT
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<213> Homo sapiens

<400> 3758

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Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
          35          40          45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
          50          55          60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
65          70          75          80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
          85          90          95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
          100          105          110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
          115          120          125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
          130          135          140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
          145          150          155          160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
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Asp Pro Gly Leu Cys Gly Leu Val Val Val Ala Leu Ala Glu Ile Phe
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Phe Arg Asp Gly Lys Ser Phe
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<210> 3759

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3759

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540

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<210> 3760

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3760

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Arg	Asn	Pro	Glu	His	Cys	Pro	Cys	Gly	Glu	Lys	Arg	Asp	Trp	Glu	Glu
			20					25					30		
Cys	Asp	Arg	Glu	Leu	Tyr	Pro	Gly	Glu	Pro	Arg	Leu	His	Leu	Ser	Ala
			35					40					45		
Pro	Gly	Pro	Ala	Ser	His	Gln	Asp	Gln	Pro	Glu	Trp	Gln	Glu	Asp	Met
			50					55					60		
Gly	Arg	Thr	Gly	Gly	Gly	Gly	Cys	Gly	His	Pro	Ser	Phe	Asn	Gln	Met
65						70				75				80	
Leu	Asp	Val	Lys	Gly	Pro	Ile	Pro	Val	Lys	Arg	Gly	Gly	Gln	Ala	Leu
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Phe	Val	Leu	Leu												
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<210> 3761

<211> 458

<212> DNA

<213> Homo sapiens

<400> 3761

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458

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 <212> PRT
 <213> Homo sapiens

<400> 3762
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<210> 3763
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 <212> DNA
 <213> Homo sapiens

<400> 3763
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<211> 288

<212> PRT

<213> Homo sapiens

<400> 3764

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			20					25					30		
Ser	Pro	Arg	Cys	Ala	Ala	Thr	Met	Ala	Ser	Ser	Asp	Glu	Asp	Gly	Thr
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65					70					75				80	
Ile	Ala	Met	Thr	Ala	Gly	Trp	Leu	Val	Leu	Ala	Ile	Ala	Met	Val	Arg
			85						90					95	
Phe	Tyr	Met	Glu	Lys	Gly	Thr	His	Arg	Gly	Leu	Tyr	Lys	Ser	Ile	Gln
		100						105					110		
Lys	Thr	Leu	Lys	Phe	Phe	Gln	Thr	Phe	Ala	Leu	Leu	Glu	Ile	Val	His
	115						120					125			
Cys	Leu	Ile	Gly	Ile	Val	Pro	Thr	Ser	Val	Ile	Val	Thr	Gly	Val	Gln
	130					135					140				
Val	Ser	Ser	Arg	Ile	Phe	Met	Val	Trp	Leu	Ile	Thr	His	Ser	Ile	Lys
145				150					155					160	
Pro	Ile	Gln	Asn	Glu	Glu	Ser	Val	Val	Leu	Phe	Leu	Val	Ala	Trp	Thr
			165						170					175	
Val	Thr	Glu	Ile	Thr	Arg	Tyr	Ser	Phe	Tyr	Thr	Phe	Ser	Leu	Leu	Asp
		180						185					190		
His	Leu	Pro	Tyr	Phe	Ile	Lys	Trp	Ala	Arg	Tyr	Asn	Phe	Phe	Ile	Ile
	195					200					205				
Leu	Tyr	Pro	Val	Gly	Val	Ala	Gly	Glu	Leu	Leu	Thr	Ile	Tyr	Ala	Ala
	210					215					220				
Leu	Pro	Tyr	Val	Lys	Lys	Thr	Gly	Met	Phe	Ser	Ile	Arg	Leu	Pro	Asn
225				230					235					240	
Lys	Tyr	Asn	Val	Ser	Phe	Asp	Tyr	Tyr	Tyr	Phe	Leu	Leu	Ile	Thr	Met

	245		250		255
Ala Ser Tyr	Ile Pro Leu Phe Pro Gln Leu Tyr Phe His Met Leu Arg				
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<210> 3765

<211> 2764

<212> DNA

<213> Homo sapiens

<400> 3765

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1260

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<210> 3766

<211> 464

<212> PRT

<213> Homo sapiens

<400> 3766

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Arg Arg Arg Arg Gly Pro Ile Gly Arg Val Asn Met Asp Leu Glu Asn
      35           40           45
Lys Val Lys Lys Met Gly Leu Gly His Glu Gln Gly Phe Gly Ala Pro
      50           55           60
Cys Leu Lys Cys Lys Glu Lys Cys Glu Gly Phe Glu Leu His Phe Trp
      65           70           75           80
Arg Lys Ile Cys Arg Asn Cys Lys Cys Gly Gln Glu Glu His Asp Val
      85           90           95
Leu Leu Ser Asn Glu Glu Asp Arg Lys Val Gly Lys Leu Phe Glu Asp
      100          105          110
Thr Lys Tyr Thr Thr Leu Ile Ala Lys Leu Lys Ser Asp Gly Ile Pro
      115          120          125
Met Tyr Lys Arg Asn Val Met Ile Leu Thr Asn Pro Val Ala Ala Lys
      130          135          140
Lys Asn Val Ser Ile Asn Thr Val Thr Tyr Glu Trp Ala Pro Pro Val
      145          150          155          160
Gln Asn Gln Ala Leu Ala Arg Gln Tyr Met Gln Met Leu Pro Lys Glu
      165          170          175
Lys Gln Pro Val Ala Gly Ser Glu Gly Ala Gln Tyr Arg Lys Lys Gln
      180          185          190
Leu Ala Lys Gln Leu Pro Ala His Asp Gln Asp Pro Ser Lys Cys His
      195          200          205
Glu Leu Ser Pro Arg Glu Val Lys Glu Met Glu Gln Phe Val Lys Lys
      210          215          220
Tyr Lys Ser Glu Ala Leu Gly Val Gly Asp Val Lys Leu Pro Cys Glu
      225          230          235          240
Met Asp Ala Gln Gly Pro Lys Gln Met Asn Ile Pro Gly Gly Asp Arg
      245          250          255
Ser Thr Pro Ala Ala Val Gly Ala Met Glu Asp Lys Ser Ala Glu His
      260          265          270
Lys Arg Thr Gln Tyr Ser Cys Tyr Cys Cys Lys Leu Ser Met Lys Glu
      275          280          285
Gly Asp Pro Ala Ile Tyr Ala Glu Arg Ala Gly Tyr Asp Lys Leu Trp
      290          295          300
His Pro Ala Cys Phe Val Cys Ser Thr Cys His Glu Leu Leu Val Asp
      305          310          315          320
Met Ile Tyr Phe Trp Lys Asn Glu Lys Leu Tyr Cys Gly Arg His Tyr
      325          330          335
Cys Asp Ser Glu Lys Pro Arg Cys Ala Gly Cys Asp Glu Leu Ile Phe
      340          345          350
Ser Asn Glu Tyr Thr Gln Ala Glu Asn Gln Asn Trp His Leu Lys His
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Phe Cys Cys Phe Asp Cys Asp Ser Ile Leu Ala Gly Glu Ile Tyr Val
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Met Val Asn Asp Lys Pro Val Cys Lys Pro Cys Tyr Val Lys Asn His

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385		390		395		400									
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Arg	Val	Thr	Tyr	Asn	Asn	Phe	Ser	Trp	His	Ala	Ser	Thr	Glu	Cys	Phe
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Leu	Cys	Ser	Cys	Cys	Ser	Lys	Cys	Leu	Ile	Gly	Gln	Lys	Phe	Met	Pro
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<210> 3767

<211> 2439

<212> DNA

<213> Homo sapiens

<400> 3767

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<210> 3768

<211> 379

<212> PRT

<213> Homo sapiens

<400> 3768

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<211> 447

<212> PRT

<213> Homo sapiens

<400> 3770

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<210> 3771

<211> 1514

<212> DNA

<213> Homo sapiens

<400> 3771

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<211> 280

<212> PRT

<213> Homo sapiens

<400> 3772

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<212> DNA

<213> Homo sapiens

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<210> 3774

<211> 678

<212> PRT

<213> Homo sapiens

<400> 3774

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<211> 549

<212> DNA

<213> Homo sapiens

<400> 3775

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<210> 3776

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3776

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<212> DNA

<213> Homo sapiens

<400> 3777

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 <211> 1049
 <212> PRT
 <213> Homo sapiens

<400> 3778

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<400> 3779

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<210> 3780

<211> 530

<212> PRT

<213> Homo sapiens

<400> 3780

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Gly Lys Asp Arg Gly Arg Asp Phe Glu Arg Gln Arg Glu Lys Arg Asp			
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Ser Ser Ser Arg Asp His Arg Asp Asp Arg Glu Pro Arg Asp Gly Arg			
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	340	345	350
Ser Arg Asp Met Arg Asp Ser Arg Glu Met Arg Asp Tyr Ser Arg Asp			
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Thr Lys Glu Ser Arg Asp Pro Arg Asp Ser Arg Ser Thr Arg Asp Ala			
	370	375	380
His Asp Tyr Arg Asp Arg Glu Gly Arg Asp Thr His Arg Lys Glu Asp			
385	390	395	400
Thr Tyr Pro Glu Glu Ser Arg Ser Tyr Gly Arg Asn His Leu Arg Glu			
	405	410	415
Glu Ser Ser Arg Thr Glu Ile Arg Asn Glu Ser Arg Asn Glu Ser Arg			
	420	425	430
Ser Glu Ile Arg Asn Asp Arg Met Gly Arg Ser Arg Gly Arg Val Pro			

435 440 445
 Glu Leu Pro Glu Lys Gly Ser Arg Gly Ser Arg Gly Ser Gln Ile Asp
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 Ser His Ser Ser Asn Ser Asn Tyr His Asp Ser Trp Glu Thr Arg Ser
 465 470 475 480
 Ser Tyr Pro Glu Arg Asp Arg Tyr Pro Glu Arg Asp Asn Arg Asp Gln
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 Lys Glu
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<210> 3781

<211> 1364

<212> DNA

<213> Homo sapiens

<400> 3781

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<211> 112

<212> PRT

<213> Homo sapiens

<400> 3782

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Asp	Leu	Gln	Asp	Ser	Ser	Glu	Leu	His	Pro	Glu	Phe	Ala	Lys	Cys	His
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<210> 3783

<211> 4137

<212> DNA

<213> Homo sapiens

<400> 3783

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<210> 3784

<211> 804

<212> PRT

<213> Homo sapiens

<400> 3784

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		20					25					30			
Leu	Leu	Glu	Arg	Val	Glu	Glu	Pro	Val	Leu	Gln	Asn	Gln	Ile	Arg	Glu
		35				40					45				
His	Val	Ile	Ala	Ile	Glu	Asp	Ala	Phe	Val	Asn	Ser	Gln	Glu	Trp	Thr
	50				55					60					
Leu	Ser	Arg	Ser	Val	Pro	Glu	Leu	Lys	Val	Gly	Ile	Val	Gly	Asn	Leu
65				70				75						80	
Ala	Ser	Gly	Lys	Ser	Ala	Leu	Val	His	Arg	Tyr	Leu	Thr	Gly	Thr	Tyr
			85					90					95		
Val	Gln	Glu	Glu	Ser	Pro	Glu	Gly	Gly	Arg	Phe	Lys	Lys	Glu	Ile	Val
		100					105						110		
Val	Asp	Gly	Gln	Ser	Tyr	Leu	Leu	Leu	Ile	Arg	Asp	Glu	Gly	Gly	Pro
	115					120				125					
Pro	Glu	Ala	Gln	Phe	Ala	Met	Trp	Val	Asp	Ala	Val	Ile	Phe	Val	Phe
	130				135					140					
Ser	Leu	Glu	Asp	Glu	Ile	Ser	Phe	Gln	Thr	Val	Tyr	His	Tyr	Tyr	Ser
145				150						155				160	
Arg	Met	Ala	Asn	Tyr	Arg	Asn	Thr	Ser	Glu	Ile	Pro	Leu	Val	Leu	Val
			165					170						175	
Gly	Thr	Gln	Asp	Ala	Ile	Ser	Ser	Ala	Asn	Pro	Arg	Val	Ile	Asp	Asp
		180					185						190		
Ala	Arg	Ala	Arg	Lys	Leu	Ser	Asn	Asp	Leu	Lys	Arg	Cys	Thr	Tyr	Tyr
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Glu	Thr	Cys	Ala	Thr	Tyr	Gly	Leu	Asn	Val	Glu	Arg	Val	Phe	Gln	Asp
	210				215					220					
Val	Ala	Gln	Lys	Ile	Val	Ala	Thr	Arg	Lys	Lys	Gln	Gln	Leu	Ser	Ile
225				230						235				240	
Gly	Pro	Cys	Lys	Ser	Leu	Pro	Asn	Ser	Pro	Ser	His	Ser	Ser	Val	Cys

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705	710	715
His Leu Ala Cys Arg Lys Gly Asn Val Val Leu Ala Gln Leu Leu Ile		
725	730	735
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755	760	765
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<210> 3785

<211> 1901

<212> DNA

<213> Homo sapiens

<400> 3785

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<211> 168

<212> PRT

<213> Homo sapiens

<400> 3786

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<212> DNA

<213> Homo sapiens

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<210> 3788

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3788

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Pro Trp Gly Ala Lys Cys Ser Trp Arg Gln Val Ala Lys Gly Glu His
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Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

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			85					90					95						
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<210> 3789

<211> 4341

<212> DNA

<213> Homo sapiens

<400> 3789

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<210> 3790
 <211> 1092
 <212> PRT
 <213> Homo sapiens

<400> 3790

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Leu Gln Val Leu Lys Ala Gln Ser Glu Asp Pro Leu Pro Glu Leu His
      35              40              45
Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser
      50              55              60
Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala
      65              70              75              80
Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu
      85              90              95
Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val
      100             105             110
Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val
      115             120             125
Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu
      130             135             140
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      145             150             155             160
Lys Leu Gln Lys Asp Cys Met Glu Glu Ile Asn Leu Phe Ser Glu Asn
      165             170             175
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      180             185             190
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      195             200             205
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Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys
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Ala Asn Glu Thr Glu Cys Asp Ser Ile Gln Gln Thr Thr Arg Ser Leu
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Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met
      325             330             335
Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr
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      355             360             365
Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

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Asp Thr Ala Ser Arg Leu Lys Gln Met Val His Glu Gly Asn Gln Arg		415
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	435	440
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	450	455
Leu Val Trp Leu Thr Glu Met Asp Leu Gln Leu Thr Asn Val Glu His		460
465	470	475
Phe Ser Glu Ser Asp Ala Asp Asp Lys Met Arg Gln Leu Asn Gly Phe		480
	485	490
Gln Gln Glu Ile Thr Leu Asn Thr Asn Lys Ile Asp Gln Leu Ile Val		495
	500	505
Phe Gly Glu Gln Leu Ile Gln Lys Ser Glu Pro Leu Asp Ala Val Leu		510
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Ile Glu Asp Glu Leu Glu Glu Leu His Arg Tyr Cys Gln Glu Val Phe		525
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Gly Arg Val Ser Arg Phe His Arg Arg Leu Thr Ser Cys Thr Pro Gly		540
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Leu Glu Asp Glu Lys Glu Ala Ser Glu Asn Glu Thr Asp Met Glu Asp		560
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Pro Arg Glu Ile Gln Thr Asp Ser Trp Arg Lys Arg Gly Glu Ser Glu		575
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His Tyr Lys Gln Met Glu Gly Asp Arg Asn Val Pro Pro Val Pro Pro		670
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Pro Gly Thr Asp Gly Gly Lys Glu Gly Pro Arg Val Leu Asn Gly Asn		700
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Pro Gln Gln Glu Asp Gly Gly Leu Ala Gly Ile Thr Glu Gln Gln Ser		720
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Gly Ala Phe Asp Arg Trp Glu Met Ile Gln Ala Gln Glu Leu His Asn		735
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Lys Leu Lys Ile Lys Gln Asn Leu Gln Gln Leu Asn Ser Asp Ile Ser		750
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Lys Met Ala Lys Pro Pro Ser Asp Ile Gln Glu Ile Glu Leu Arg Val		780
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<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

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<212> PRT

<213> Homo sapiens

<400> 3792

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Ala	Leu	Ser	Met	Gly	Gly	Lys	Val	Pro	Val	Ser	Glu	Gly	Leu	Glu	His
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Ser	Asp	Leu	Pro	Asp	Gly	Thr	Gly	Glu	Phe	Leu	Asp	Ala	Trp	Leu	Met
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Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
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Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
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225	230	235
Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro		
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 <212> DNA
 <213> Homo sapiens

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 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 3794
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 Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser
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<210> 3795
 <211> 1341

<212> DNA

<213> Homo sapiens

<400> 3795

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<210> 3796

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3796

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Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val
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Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
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Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
65           70           75           80
Asn Ser Pro Ser Phe Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
          85           90           95
Tyr Leu Lys Leu Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
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Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
          115          120          125
Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
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Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
145          150          155          160
Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
          165          170          175
Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
          180          185          190
Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
          195          200          205
Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
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Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
225          230          235          240
Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
          245          250          255
Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
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Pro Gln Glu Arg Glu Gly Glu Gly Gly Leu Ser Leu Gln Val Glu Pro
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<210> 3797

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 3797

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<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

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			20					25					30		
His	Trp	Trp	Ser	Glu	Arg	Thr	His	Lys	Asn	Leu	Ser	Asp	Met	Glu	Asn
			35				40					45			
Glu	Phe	Tyr	Tyr	Arg	Tyr	Pro	Ser	Phe	Gln	Asp	Val	His	Val	Met	Val
			50			55					60				
Phe	Val	Gly	Phe	Gly	Phe	Leu	Met	Thr	Phe	Leu	Gln	Arg	Tyr	Gly	Phe
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Ser	Ala	Val	Gly	Phe	Asn	Phe	Leu	Leu	Ala	Phe	Gly	Ile	Gln	Trp	
				85					90					95	
Ala	Leu	Leu	Met	Gln	Gly	Trp	Phe	His	Phe	Leu	Gln	Asp	Arg	Tyr	Ile
			100					105					110		
Val	Val	Gly	Val	Glu	Asn	Leu	Ile	Asn	Ala	Asp	Phe	Cys	Val	Ala	Ser
			115				120					125			
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Phe	Ile	Leu	Leu	Asn	Leu	Leu	Lys	Val	Lys	Asp	Ala	Gly	Gly	Ser	Met
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Thr	Ile	His	Thr	Phe	Gly	Ala	Tyr	Phe	Gly	Leu	Thr	Val	Thr	Arg	Ile
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		275					280					285			
Thr	Ala	Ala	Glu	Met	Met	Leu	Met	Pro	Tyr	Gly	Ala	Leu	Ile	Ile	Gly
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Phe	Val	Cys	Gly	Ile	Ile	Ser	Thr	Leu	Gly	Phe	Val	Tyr	Leu	Thr	Pro
305					310					315				320	
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Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355          360          365
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          370          375          380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
385          390          395          400
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405          410          415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420          425          430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
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<210> 3799

<211> 210

<212> DNA

<213> Homo sapiens

<400> 3799

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<210> 3800

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3800

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          20          25          30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
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<210> 3801

<211> 4070

<212> DNA

<213> Homo sapiens

<400> 3801

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<210> 3802

<211> 476

<212> PRT

<213> Homo sapiens

<400> 3802

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			20					25					30		
Leu	Trp	Thr	Ala	Ile	Thr	Leu	Phe	Ile	Phe	Leu	Val	Cys	Cys	Gln	Ile
		35				40					45				
Pro	Leu	Phe	Gly	Ile	Met	Ser	Ser	Asp	Ser	Ala	Asp	Pro	Phe	Tyr	Trp
	50					55					60				
Met	Arg	Val	Ile	Leu	Ala	Ser	Asn	Arg	Gly	Thr	Leu	Met	Glu	Leu	Gly
65					70					75				80	
Ile	Ser	Pro	Ile	Val	Thr	Ser	Gly	Leu	Ile	Met	Gln	Leu	Leu	Ala	Gly
			85					90						95	
Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
			100					105					110		
Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

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			20					25					30		
Glu	Leu	Arg	Lys	Ser	Gly	Glu	Ala	Lys	Tyr	Ala	His	Leu	Ser	Asp	Glu
			35				40					45			
Leu	His	Val	Leu	Ile	Glu	Val	Phe	Ala	Pro	Pro	Gly	Glu	Ala	Tyr	Ser
			50				55				60				
Arg	Met	Ser	His	Ala	Leu	Glu	Glu	Ile	Lys	Lys	Phe	Leu	Val	Pro	Asp
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Tyr	Asn	Asp	Glu	Ile	Arg	Gln	Glu	Gln	Leu	Arg	Glu	Leu	Ser	Tyr	Leu
				85				90					95		
Asn	Gly	Ser	Glu	Asp	Ser	Gly	Arg	Gly	Arg	Gly	Ile	Arg	Gly	Arg	Gly
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Ile	Arg	Ile													
			115												

<210> 3805

<211> 1923

<212> DNA

<213> Homo sapiens

<400> 3805

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 <212> PRT
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<400> 3806
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<212> PRT

<213> Homo sapiens

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			20					25					30		
Leu	Ala	Arg	Ser	Ala	Arg	Phe	Arg	Gln	Gly	Gly	Arg	Phe	Pro	Val	Leu
		35				40						45			
Ser	Tyr	His	Pro	Ala	Pro	Ser	Gly	Arg	Gly	Ser	Ala	Pro	Ser	Pro	Arg
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<211> 1221

<212> DNA

<213> Homo sapiens

<400> 3809

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<211> 97

<212> PRT

<213> Homo sapiens

<400> 3810

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			20					25					30		
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
			35				40					45			
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
			50				55				60				
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
						70				75				80	
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
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<210> 3811

<211> 296

<212> DNA

<213> Homo sapiens

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<210> 3812

<211> 94

<212> PRT

<213> Homo sapiens

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Pro	Val	Leu	Lys	Ala	Gln	Asn	Cys	Arg	Pro	Ser	Gly	Arg	Pro	Val	Leu
			20					25					30		
Pro	Tyr	Gln	Arg	Thr	Pro	Arg	Gln	Ile	Ser	Gly	Gln	Gln	Gly	His	Leu
		35					40					45			
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	50					55				60					
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<212> DNA

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<211> 294

<212> PRT

<213> Homo sapiens

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Phe	Pro	Arg	Asp	Pro	Glu	Gly	Ala	Glu	Asp	Glu	Phe	Val	Thr	Ser	Ile
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Glu	Thr	Trp	Arg	Glu	Thr	Met	Gly	Ile	Pro	Ser	Met	Ile	Leu	Leu	Gly
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Arg	Pro	Thr	Asn	Pro	Ser	Glu	Ile	Arg	Ala	Pro	Pro	Ala	Trp	Val	Lys
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Lys	Ala	Met	Met	Glu	Ser	Phe	Gly	Trp	Ala	Arg	Arg	Pro	Met	Leu	Glu				
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Arg	Ile	His	Leu	Ile	Arg	Lys	Asp	Val	Pro	Ile	Thr	Met	Ile	Tyr	Gly				
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Ser	Asp	Thr	Trp	Ile	Asp	Thr	Ser	Thr	Gly	Lys	Lys	Val	Lys	Met	Gln				
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Arg	Pro	Asp	Ser	Tyr	Val	Arg	Asp	Met	Glu	Ile	Lys	Gly	Ala	Ser	His				
		260					265						270						
His	Val	Tyr	Ala	Asp	Gln	Pro	His	Ile	Phe	Asn	Ala	Val	Val	Glu	Glu				
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<210> 3815

<211> 3669

<212> DNA

<213> Homo sapiens

<400> 3815

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<212> PRT

<213> Homo sapiens

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			20					25					30		
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Ser Pro Leu Val Leu Leu Glu Phe Gln Cys Pro Thr Pro Gln Ile Cys		95
	100	105
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	115	120
Ser Arg Asp Phe Glu Tyr Tyr Lys Gln Phe Cys Val Pro Gly Phe Lys		125
	130	135
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	145	150
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	165	170
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Lys Lys Ala Asn Gly Val Leu Glu Ala Arg Gln Leu Ala Met Arg Ile		205
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Ile Ala Met Ala Met Ser Leu Leu Phe Ile Ile Leu Leu Arg Phe Leu		235
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Ala Gly Ile Met Val Trp Val Met Ile Ile Met Val Ile Leu Val Leu		255
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Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg Leu Arg Gly		270
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Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly Phe Gln Thr Asp		285
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Ala Val Gly Tyr Val Met Cys Ser Leu Leu Tyr Pro Leu Val Thr Phe		350
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Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg Cys Gln Phe Ala Phe		415
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Tyr Gly Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu Gln Ile		430
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Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe Val Leu Ala Leu		445
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Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp Ala Leu		460
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Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala Phe Gly		475
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<211> 419

<212> DNA

<213> Homo sapiens

<400> 3817

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<213> Homo sapiens

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Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
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Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Asp Leu Leu
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<212> PRT

<213> Homo sapiens

<400> 3820

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<212> DNA
<213> Homo sapiens

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<211> 375

<212> PRT

<213> Homo sapiens

<400> 3822

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<212> DNA

<213> Homo sapiens

<400> 3823

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<211> 342

<212> PRT

<213> Homo sapiens

<400> 3824

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<212> DNA

<213> Homo sapiens

<400> 3825

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<213> Homo sapiens

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<213> Homo sapiens

<400> 3829

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<212> PRT

<213> Homo sapiens

<400> 3830

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Tyr Lys Val Ser Val Thr Ala Arg Glu Asp Val Pro Thr Phe Gly Pro
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Asp Lys Phe Ala Lys Leu Glu Asp Arg Thr Arg Ala Ala Leu Leu Asp
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<211> 726

<212> DNA

<213> Homo sapiens

<400> 3831

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35     40     45
Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
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Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
65     70     75     80
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<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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	325	330
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<210> 3835

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 3835

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<210> 3836

<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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			20					25				30			
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 Gly Leu Thr Ala Ser Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr
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 Thr Arg Ala Lys Asp Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg
 130 135 140
 Asp Leu Asp Arg Ile Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg
 145 150 155 160
 Val Ile Tyr Thr Asn Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser
 165 170 175
 Glu Lys Gln Cys Arg Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp
 180 185 190
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 195 200 205
 Ile Ala Lys Glu Lys Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu
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 275 280 285
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 405 410 415
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<210> 3837

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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			20					25					30		
Ser	His	Leu	Pro	Pro	Glu	His	Ser	Asp	Val	Val	Ile	Val	Gly	Gly	Gly
		35					40					45			
Val	Leu	Gly	Leu	Ser	Val	Ala	Tyr	Trp	Leu	Lys	Lys	Leu	Glu	Ser	Arg
	50					55					60				
Arg	Gly	Ala	Ile	Arg	Val	Leu	Val	Val	Glu	Arg	Asp	His	Thr	Tyr	Ser
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Gln	Ala	Ser	Thr	Gly	Leu	Ser	Val	Gly	Gly	Ile	Cys	Gln	Gln	Phe	Ser
				85					90					95	
Leu	Pro	Glu	Asn	Ile	Gln	Leu	Ser	Leu	Phe	Ser	Ala	Ser	Phe	Leu	Arg
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Val	Ser	Leu	Met	Ser	Pro	Asp	Gln	Leu	Arg	Asn	Lys	Phe	Pro	Trp	Ile
				165					170					175	
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Trp	Phe	Asp	Pro	Trp	Cys	Leu	Leu	Gln	Gly	Leu	Arg	Arg	Lys	Val	Gln
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210				215				220							
Ser	Ser	Gln	Arg	Met	Leu	Thr	Thr	Asp	Asp	Lys	Ala	Val	Val	Leu	Lys
225					230				235				240		
Arg	Ile	His	Glu	Val	His	Val	Lys	Met	Asp	Arg	Ser	Leu	Glu	Tyr	Gln
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Pro	Val	Glu	Cys	Ala	Ile	Val	Ile	Asn	Ala	Ala	Gly	Ala	Trp	Ser	Ala
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Gln	Ile	Ala	Ala	Leu	Ala	Gly	Val	Gly	Glu	Gly	Pro	Pro	Gly	Thr	Leu
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Gln	Gly	Thr	Lys	Leu	Pro	Val	Glu	Pro	Arg	Lys	Arg	Tyr	Val	Tyr	Val
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Trp	His	Cys	Pro	Gln	Gly	Pro	Gly	Leu	Glu	Thr	Pro	Leu	Val	Ala	Asp
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Thr	Ser	Gly	Ala	Tyr	Phe	Arg	Arg	Glu	Gly	Leu	Gly	Ser	Asn	Tyr	Leu
				325				330				335			
Gly	Gly	Arg	Ser	Pro	Thr	Glu	Gln	Glu	Glu	Pro	Asp	Pro	Ala	Asn	Leu
				340				345				350			
Glu	Val	Asp	His	Asp	Phe	Phe	Gln	Asp	Lys	Val	Trp	Pro	His	Leu	Ala
				355				360				365			
Leu	Arg	Val	Pro	Ala	Phe	Glu	Thr	Leu	Lys	Cys	Phe	Val	His	Pro	Gln
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				405				410				415			
Thr	Gly	Phe	Ser	Gly	His	Gly	Leu	Gln	Gln	Ala	Pro	Gly	Ile	Gly	Arg
				420				425				430			
Ala	Val	Ala	Glu	Met	Val	Leu	Lys	Gly	Arg	Phe	Gln	Thr	Ile	Asp	Leu
				435				440				445			
Ser	Pro	Phe	Leu	Phe	Thr	Arg	Phe	Tyr	Leu	Gly	Glu	Lys	Ile	Gln	Glu
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465															

<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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			20						25				30		
Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
			35				40						45		
Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
			50				55				60				
Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
65					70					75				80	
Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
			85						90					95	
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Ser	Tyr	Gln	Pro	Pro	Pro	Ala
			100					105						110	
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
			115				120					125			
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
			130			135					140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
145					150					155				160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
			165					170					175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
			180				185						190		
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
			195				200					205			
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
			210			215					220				
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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250

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 <211> 367
 <212> DNA
 <213> Homo sapiens

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 367

<210> 3842
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 3842
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 35 40 45
 Glu His Pro Asn Asp Val Arg Cys Ser Ser Thr Leu Val Thr His Ser
 50 55 60
 Lys Gly Tyr Glu Asn Gly Thr Asn Arg Leu Ser Leu Pro Lys Pro Ile
 65 70 75 80
 Leu Lys Ser Glu Lys Asn Lys Pro Leu Asp Pro Glu Met Gln Cys Leu
 85 90 95
 Leu Leu Ser Asp Gly Lys Gly Ser Ile His Pro Asn His Val Val Ile
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 Leu Pro Gly Asp Gly Gly Ser Gly Pro Ala
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<210> 3843
 <211> 712
 <212> DNA
 <213> Homo sapiens

<400> 3843
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<210> 3844

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3844

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			20					25				30			
Ser	Arg	Asn	Cys	Ser	Ala	Ser	Thr	Ser	Gln	Gly	Arg	Lys	Ala	Ser	Thr
		35					40				45				
Ala	Pro	Gly	Ala	Glu	Ala	Ser	Pro	Ser	Pro	Cys	Ile	Thr	Glu	Arg	Ser
	50					55					60				
Lys	Gln	Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70					75					80
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
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Ser	Ser	Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg
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<211> 2302

<212> DNA

<213> Homo sapiens

<400> 3845

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<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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Gln	Arg	Ala	Ala	Ser	Arg	Ala	Gly	Cys	Gly	His	Arg	Gln	Leu	Gln	Arg
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Ala	Pro	Ala	Pro	Gly	Leu	Arg	Gln	His	Pro	Cys	Gly	Ser	Gly	Thr	Glu
		115					120					125			
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Pro	His	Thr	Leu	Gln	Arg	His	Leu	Gly	Pro	His	Ala	Thr	Gly	His	Gly
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<210> 3847
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 3847
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<211> 120

<212> PRT

<213> Homo sapiens

<400> 3848

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Phe	Lys	Lys	Ala	Val	Thr	Asp	Ala	Ile	Met	Ser	Arg	Arg	Ala	Ile	Arg
			20					25					30		
Asn	Met	Asn	Thr	Leu	Tyr	Pro	Asp	Ala	Thr	Pro	Glu	Glu	Leu	Gln	Ala
		35					40					45			
Met	Asp	Asn	Val	Cys	Ile	Ile	Cys	Arg	Glu	Glu	Met	Val	Thr	Gly	Ala
	50					55					60				
Lys	Arg	Leu	Pro	Cys	Asn	His	Ile	Phe	His	Thr	Arg	Trp	Glu	Gly	Pro
65					70					75				80	
Trp	Gly	Ala	Cys	Pro	Ala	Gly	Pro	Arg	Pro	Gln	Lys	Ala	Gly	Pro	Lys
			85					90					95		
Gly	Pro	Ala	Asp	Leu	Cys	Leu	Ala	Leu	Thr	Arg	Ser	Cys	Leu	Arg	Ser
			100					105					110		
Trp	Phe	Gln	Arg	Gln	Gln	Thr	Cys								
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<210> 3849

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 3849

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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55				60					
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
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Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85						90					95	
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
			100					105						110	
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115					120					125			
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
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Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170						175	
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	180		185		190
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Leu	Cys Ile Arg Val Phe Gln Glu Thr Gln Lys Leu Lys Lys Arg Arg				
	210		215		220
Arg	Ala Leu Lys Ala Ala Ala Ala Ala Gln Lys Gln Ala Lys Arg Arg				
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<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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		20						25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
	35					40						45			
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55					60				
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln
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Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
				85					90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
		100						105					110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
	115						120					125			
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
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Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His
			165					170						175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
		180						185					190		
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
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Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
	210					215					220				
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225				230						235					240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
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	260							265					270		
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	275						280					285			
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
	290					295					300				
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 <212> DNA
 <213> Homo sapiens

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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
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 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
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<210> 3855
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 <212> DNA
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 780
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 840
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

Xaa	Ala	Ala	Thr	Met	Ala	Thr	Tyr	Asn	Gln	Leu	Ser	Tyr	Ala	Gln	Lys
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Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

35	40	45
Gly Ile Val Asp Tyr Gly	Pro Arg Pro Asn Lys Ser	Glu Met Trp Asp
50	55	60
Val Phe Cys Tyr Arg Met	Lys Asp Val Asn Cys Thr	Cys Lys Val Gly
65	70	75
Tyr Val Gly Asp Gly Phe	Ser Cys Ser Gly Asn Leu	Leu Gln Val Leu
85	90	95
Met Ser Phe Pro Ser Leu	Thr Asn Phe Leu Thr Glu	Val Leu Ala Tyr
100	105	110
Ser Asn Ser Ser Ala Arg	Gly Arg Ala Phe Leu Glu	His Leu Thr Asp
115	120	125
Leu Ser Ile Arg Gly Thr	Leu Phe Val Pro Gln Asn	Ser Gly Leu Gly
130	135	140
Glu Asn Glu Thr Leu Ser	Gly Arg Asp Ile Glu His	His Leu Ala Asn
145	150	155
Val Ser Met Phe Phe Tyr	Asn Asp Leu Val Asn Gly	Thr Xaa Pro Ala
165	170	175
Asn Glu Gly Gly Lys Gln	Ala Ala His His Cys Gln	Pro Gly Pro Thr
180	185	190
Xaa Gln Pro Thr Glu Thr	Arg Phe Val Asp Gly Arg	Ala Ile Leu Gln
195	200	205
Trp Asp Ile Phe Ala Ser	Asn Gly Ile Ile His Val	Ile Ser Arg Pro
210	215	220
Leu Lys Ala Pro Pro Ala	Pro Val Thr Leu Thr His	Thr Gly Leu Gly
225	230	235
Ala Gly Ile Phe Phe Ala	Ile Ile Leu Val Thr Gly	Ala Val Ala Leu
245	250	255
Ala Ala Tyr Ser Tyr Phe	Arg Ile Asn Arg Arg Thr	Ile Gly Phe Gln
260	265	270
His Phe Glu Ser Glu Glu	Asp Ile Asn Val Ala Ala	Leu Gly Lys Gln
275	280	285
Gln Pro Glu Asn Ile Ser	Asn Pro Leu Tyr Glu Ser	Thr Thr Ser Ala
290	295	300
Pro Pro Glu Pro Ser Tyr	Asp Pro Phe Thr Asp Ser	Glu Glu Arg Gln
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Leu Glu Gly Asn Asp Pro	Leu Arg Thr Leu	
325	330	

<210> 3857

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3857

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120
ccttccacca ggtcctgggc gagaagcata agcgcggcca cctggccgag gccgagggcc
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acagggacac ttgcgacgaa gactcgggtg ccggcgagtc ggaccgcata gacgatggca
240
ctgttaatgg ccgcggctgc tccccgggag agtcggcctc ggggggctg tccaaaaagc
300

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tgctgctggg cagccccagc tcgctgagcc cttctcttaa gcgcatcaag ctcgagaagg
 360
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 420
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 480
 aatcgctttt tgctctctcg tcggagcact ctcggagaaa cgggagcttg cgcttctcca
 540
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 600
 gcacgccccca tattagtggc cggggccccg gcaggccccag ctcaaaagag ggcagacgca
 660
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 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

Xaa	Arg	Ala	Thr	Thr	Arg	Thr	Ala	Ser	Gly	Ala	Arg	Ser	Trp	Ala	Trp
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Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40				45				
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55				60					
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70					75					

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
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 180
 acatttttta gaatgccaga aaatgaatcc aattcactgt caagaaaact cagcaagttt
 240
 ggatccatac gttataagca ccgctacagt ggcaggacag ctttgcaaat gagccgagat
 300
 ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtcgaag caagacttac
 360

cctaagcgaa tagcacaaac acagccagct gaatcaaaca ccatcagtag gataactgca
 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
 agctttaaga aagcaaagaa tgaaaatagc cctgataccc aaagaagcaa atctcatgca
 540
 ccgtgggaag aaaatggccc ccagagtggg ctctacaatt ctcccagtga tcgcactaag
 600
 tcgccaaagt tcccttacac gcgtcgccga aacccctcct gtggaagtga caatgattct
 660
 gtacagcctg tgaggaggag gaaagcccat aacagtgggt aagattcaga tcttaagcaa
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 1020
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 1260
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 1320
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 1440
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 1449

<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

Tyr	Lys	Asn	Lys	Lys	Gln	Val	Gly	Lys	Tyr	Phe	Trp	Pro	Arg	Ile	Thr
1				5				10						15	
Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
			20					25					30		
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35					40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50					55					60				
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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<210> 3861
<211> 748
<212> DNA
<213> Homo sapiens
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 480
 gaaaacgtgc tgctgagccc ggacgagcgc cgcgctcaagc tcaccgactt cggcttcggc
 540
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 600
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
			20					25					30		
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
		35					40				45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
		50				55					60				
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65					70				75					80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85					90						95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
		100					105					110			
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
	115					120					125				
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
	130				135					140					
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145				150					155					160	
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165					170					175		
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
		180				185					190				
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
	195					200					205				
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	210														

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 120
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cacgagggtc
 180
 ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagt
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
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 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
	20							25				30			
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
	35					40					45				
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55				60					
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65			70					75					80		
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
		85						90					95		
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
		100						105							

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
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 180
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatfff tagtcagact
 240
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 300
 tctcctatff acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
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 480
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 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaaggag ctctgattga ggagctctta
 180
 caggcaaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg
 240
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 300
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 360
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 420
 gagcaagacc aggcggggac tgaaatgctc gtgaagcttc tgcaggagga gaatgagaag
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 600

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 660
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 720
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<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

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			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
		50				55					60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65					70				75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
			85					90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
			100					105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
		115					120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
		130				135					140				
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145					150					155				160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
			165					170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
		180						185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
		195					200					205			
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
		210				215						220			
Glu	Asn	Glu	Leu	Glu	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln	
225					230				235					240	
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<210> 3869
<211> 1226
<212> DNA
<213> Homo sapiens
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240					
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300					
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360					
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480					
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960					
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1020					

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 ataaggcatg atgggaaccg aggaga
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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
		20					25					30			
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
	35					40				45					
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
	50					55				60					
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65				70					75					80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
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Tyr	Glu	Gly	Lys												
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<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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<211> 66
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Asp Leu
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<210> 3873
 <211> 869
 <212> DNA
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<210> 3874

<211> 289
 <212> PRT
 <213> Homo sapiens

<400> 3874

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 35           40           45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
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 65           70           75           80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
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Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
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Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
           115          120          125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
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Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
           165          170          175
Leu Ile Arg Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
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Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
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Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
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Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
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Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
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Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
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<400> 3875

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120

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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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 35 40 45
 Pro Pro Lys Glu Glu Glu Leu Arg Ala Ala Val Glu Val Leu Arg Gly
 50 55 60
 His Gly Leu His Ser Val Leu Glu Glu Trp Phe Val Glu Val Leu Gln
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 Asn Asp Leu Gln Ala Asn Ile Ser Pro Glu Phe Trp Asn Ala Ile Ser
 85 90 95
 Gln Cys Glu Asn Ser Ala Asp Glu Pro Gln Cys Leu Leu Leu Leu Leu
 100 105 110
 Asp Ala Phe Gly Leu Leu Glu Ser Arg Leu Asp Pro Tyr Leu Arg Ser
 115 120 125
 Leu Glu Leu Leu Glu Lys Trp Thr Arg Leu Gly Leu Leu Met Gly Thr

130 135 140
 Gly Ala Gln Gly Leu Arg Glu Glu Val His Thr Met Leu Arg Gly Val
 145 150 155 160
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 Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu
 180 185 190
 Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala
 195 200 205
 Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys
 210 215 220
 Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe
 225 230 235 240
 His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val
 245 250 255
 Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg
 260 265 270
 Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu
 275 280 285
 Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe
 290 295 300
 Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr
 305 310 315 320
 Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr
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 Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro
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 Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr
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 Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr
 370 375 380
 Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr
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 Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile
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 420 425 430
 Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly
 435 440 445
 Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu
 450 455 460
 Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp
 465 470 475 480
 Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg
 485 490 495
 Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys
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 Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu
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 His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu
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<212> DNA
<213> Homo sapiens
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420

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<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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			35					40					45		
Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
			50				55				60				
Ser	Glu	Lys	Arg	Ser	Lys	Asn	Pro	Ile	Ser	Arg	Pro	Leu	Glu	Gly	Lys
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Lys	Ser	Leu	Ser	Leu	Ser	Ala	Lys	Thr	His	Asn	Ile	Gly	Phe	Asp	Lys
			85						90					95	
Asp	Ser	Cys	His	Ser	Thr	Thr	Lys	Thr	Glu	Ala	Ser	Gln	Glu	Glu	Arg
			100					105					110		
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			115					120					125		
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			130				135					140			
Asn	Ser	Ser	Asp	Val	Ser	Ala	Lys	Asp	Lys	His	Ala	Glu	Asp	Asn	Glu
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Lys	Arg	Leu	Ala	Ala	Leu	Glu	Ala	Arg	Gln	Lys	Ala	Lys	Glu	Val	Gln
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Glu	Glu	Thr	Ser	Thr	Gln	Glu	Gln	Ser	His	Pro	Gly	Glu	Glu	Trp	Val	
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Pro	Gln	Phe	Glu	Gly	Arg	Ala	Gly	Gln	Lys	Leu	Met	Asp	Leu	Gln	Ser	
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His	Phe	Gly	Thr	Asp	Asp	Arg	Phe	Arg	Met	Asp	Ser	Arg	Phe	Leu	Glu	
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Thr	Asp	Ser	Glu	Glu	Glu	Gln	Glu	Glu	Val	Asn	Glu	Lys	Lys	Thr	Ala	
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<210> 3879

<211> 2769

<212> DNA

<213> Homo sapiens

<400> 3879

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 2640
 agtgtgggca gccacagatg ccccaaatc agagctcaca gtgagtgagc ccctaagctt
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 2760
 aaaaaaaaaa
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<210> 3880

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

Xaa	Met	Thr	Thr	Phe	Ser	Gln	Leu	Arg	Asp	Leu	His	Leu	Glu	Gly	Asn
1				5					10					15	
Phe	Leu	His	Arg	Leu	Pro	Ser	Glu	Val	Ser	Ala	Leu	Gln	His	Leu	Lys
			20					25					30		
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
		35					40					45			
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
		50				55					60				
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
65					70				75					80	
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
			85					90						95	
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
			100					105					110		
Ala	Pro	Leu	Pro												
			115												

<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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 120
 gaagccctgc cccacctcc tccttcttgt gaactgagct gcctagaagg gccggaggag
 180

gagctggagg gcagctcaga gccagaggag tgggtcccgc caatgcctga gagaagtcac
 240
 ctgacggagc ccagctccag tggaggggtgg ctggtcaccc catcccgaag ggaaaccccc
 300
 tctcccacac ctctctatgg acagcagtc acagccactc ttacaccctc acctcctgac
 360
 cctccccagc cccaactga catgccccat ctccatcaga tgcccaggag ggtgcccctt
 420
 gggccgagtt cccctctcag tgtatcccag cccatgctgg gcatccgtga agcgaggcct
 480
 gctggcttgg gtgctggccc tgcagcctca cccacctca gcccagtc tgcccctagc
 540
 acagccagca gtgccccagg cagaacctgg caggggaatg gggagatgac tccccactt
 600
 caaggacccc gtgctcgatt ccggaagaaa cccaaggctc ttccctacag gagggagaac
 660
 agtcctgggg acttgcccc accacccttg ccaccgccag agngaagagg cgagctgggc
 720
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 780
 gaaagcggtc caggccgtgc ccctggcagc ccagcgggtg ctccaccag atgaagaggc
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 1200
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 1260
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 1380
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 1393

<210> 3882

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3882

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 Asp Ser Gly Ala Lys Gly Gly Lys Val Lys Leu Leu Gly Lys Pro Val
 20 25 30
 Gln Met Pro Ser Leu Asn Trp Pro Glu Ala Leu Pro Pro Pro Pro

35	40	45
Ser Cys Glu Leu Ser Cys Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly		
50	55	60
Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His		
65	70	75
Leu Thr Glu Pro Ser Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg		
85	90	95
Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala		
100	105	110
Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met		
115	120	125
Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser		
130	135	140
Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro		
145	150	155
Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser		
165	170	175
Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly		
180	185	190
Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg		
195	200	205
Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp		
210	215	220
Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly		
225	230	235
Pro Arg Ala Glu Gly Ser Arg Gln His Val Leu Pro Gly Ala Gly Ala		
245	250	255
Gln Trp Gly Glu Glu Ser Gly Pro Gly Arg Ala Pro Gly Ser Pro Ala		
260	265	270
Gly Ala Pro Pro Arg		
275		

<210> 3883

<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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120

agctcctcct cctcttcttc cagttcttct agctcctctt cttctctctc gtcctcctcc

180

ttctcctcca gtgatggccg gaagaagcgg gggaagtaca aggacaagag gaggaagaag

240

aagaagaaga ggaagaagct gaagaagaag ggcaaggaga aggcggaagc acagcaggtg

300

gaggctctgc cgggccccctc gctggaccag tggcaccgat cagctgggga ggaagaggat

360

ggcccagtc tgacggatga gcaggtcccg aatccaggcc atgaagcca tgaccaagga

420

ggatgggatg cccggcagag cgttattcga aaggtggtgg acccagagac ggggcgcacc

480

aggcttatta agggagatgg cgaggtccta gaggaaatcg taaccaaaga acgacacaga
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 600
 tgtacccctc ctctgtgtg ctttcttccc cagcaagcca cccgagggga ctgcctggcc
 660
 ttccagatgc gagctgggtt gcttcctga gggccccgc tggccaaggc ctgtggacga
 720
 cgctggcggc ccagcctggg caggtttcag ggtgccagt ggaagcctga tgggtgctgg
 780
 tggcctttcc cccgtggatt ggtctctggc ccagcccagt ctcttctcag gggcaggggg
 840
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 943

<210> 3884

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3884

Xaa	Arg	Gly	Arg	Gly	Ser	Glu	Lys	Arg	Lys	Lys	Lys	Ser	Arg	Lys	Asp
1				5					10					15	
Thr	Ser	Arg	Asn	Cys	Ser	Ala	Ser	Thr	Ser	Gln	Glu	Arg	Ser	Lys	Gln
			20					25					30		
Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
		50				55				60					
Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg	Lys	Lys
65					70					75				80	
Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys	Ala	Glu
			85					90						95	
Ala	Gln	Gln	Val	Glu	Ala	Leu	Pro	Gly	Pro	Ser	Leu	Asp	Gln	Trp	His
			100					105					110		
Arg	Ser	Ala	Gly	Glu	Glu	Glu	Asp	Gly	Pro	Val	Leu	Thr	Asp	Glu	Gln
		115				120						125			
Val	Pro	Asn	Pro	Gly	His	Glu	Ala	His	Asp	Gln	Gly	Gly	Trp	Asp	Ala
		130				135					140				
Arg	Gln	Ser	Val	Ile	Arg	Lys	Val	Val	Asp	Pro	Glu	Thr	Gly	Arg	Thr
145					150					155				160	
Arg	Leu	Ile	Lys	Gly	Asp	Gly	Glu	Val	Leu	Glu	Glu	Ile	Val	Thr	Lys
			165					170						175	
Glu	Arg	His	Arg	Glu	Ile	Asn	Lys	Val	Gly	Val	Ala	Pro	Leu	Pro	Ala
		180						185					190		
Ile	Arg	Pro	Gln	Leu	Cys	Leu									
			195												

<210> 3885

<211> 1671

<212> DNA

<213> Homo sapiens

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